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Behold A Prince Renowned In Peace and Arms. | The Belgian glory and Great Britain's Joy.
Whose name and Fame the world with wonder charms. | who saved the Dear Palladium of our Trov.

J. D. Bouché del.

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The Perfection of *Galga*
Military Discipline

After the Newest Method;

As Practiced

In **England** and **Ireland**, &c.

K

O B,

The Industrious **SOLDIER'S** Golden
Treasury of Knowledge in the Art of making **WAR**.

CONTAINING,

Instructions for the Exercising the Pike and Musket in all their Postures, with the Signs of the Drum, by its beating the several Points of War; the Exercise of Grenadiers, Horse, and Dragoons: The Explanation of the Words of Command, and how to be put in Practice. The manner of drawing up in several Forms of Battle. The various Firings and Advantages to be gained thereby: The several Doublings, Wheelings, and drawing up of Battalions, Squadrons of Horse, &c. with the Conduct of Armies in open, or enclosed Countries, or upon any Occasion or Emergency, how the detached Party and Officers, &c. ought to carry themselves. Several ways of Encampment; opening difficult Passes, taking Castles, passing Bridges, opposing Town, or Fortresses. The Method to be observed in Garisons, and the manner of Fortification, with that of besieging strong Holds, &c.

To which is added, as a Second Part,

The Art of Gunnery; or, The Complete Engineer, shewing the Practice of the Ordnance, Mortars, &c. with the manner of making and using Fire-works for War, at Sea and Land.

The Fourth Edition Corrected, with large Additions.

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Licensed according to Order.



THE
PREFACE.

THE Profession of Arms has in all Ages been in such Esteem, that the Great Men of the World have made it their Study, Emperors and Kings have preferred the Name of a Soldier above the rest of their Glorious Titles; and indeed, the Sword is properly the Bullwark of a Kingdom, without which, the Laws, would prove weak and ineffectual; for did not the Violaters fear that Power, which is of force to compel them to undergo the Penalties of the Laws, they would esteem them but a dead Letter: And to speak more plain, The Soldier is the Guard of Liberty, Property, and whatever is dear to Mankind, as being at all times ready to sacrifice his Life for the Defence of his Country; nor are the Advantages small, that may incite Men to the Study of the Military Art, for it is often seen, that Persons of mean Birth and Fortune, have, by their Courage and Industry, become great Commanders, and many times Gene-

The P R E F A C E.

vals of Armies : Courage, indeed, is a great Qualification in the profession of Arms, but without Experience it frequently do's hurt, and rarely raises a Man to any considerable Station ; but joyned with Experience, and kept within bounds, it wants but Opportunity to make him Eminent ; though many Books of this kind have appeared in the World, yet, being either of an extraordinary Price, or wanting somewhat New, and necessary to be known, we thought fit, especially for the Instruction of Young Soldiers, to compile, in a small Volume, such a Body of Military Discipline, &c. as at this time is Practicall, and approved by the great Captains of this Age, that they may be able to understand their Duty, and perform it with Exactness and Dexterity ; so that being well grounded in the most necessary and Honourable Art, their Courage, Zeal, and Loyalty may not only frustrate the Projects of our Enemies abroad, and at home, but render these Kingdoms dreadful to our Neighbours, and Happy in themselves.

T H E

The Perfection of
MILITARY DISCIPLINE

After the Newest Method,

As Practised

In **England** and **Ireland**, &c.

THE most promising things to Preference in this great Art, are Valour, and Obedience; for it is not only very commendable when occasion offers, to Fight Valiantly, but likewise to Obey Patiently, the latter being looked upon as a great Vertue; to these Experience, acquired by Labour and Industry, being joyned, Difficulties will the easier be overcome; a Man may indeed, a long time bear Arms, and yet be ignorant in many things he ought materially to know; but an Industrious Mind will accomplish much in a short time.

There are several things in the *Military Art* to be considered; and in the first place, those properly called the Senses, by which we receive Advertisment, as the Eye and the Ear; and in this case a strict Observance, and Silence is required, that the one and the other may not be mistaken. The Signs used in War, are commonly three, *viz. The Voyce, which conveys*

the Word of Command to the Ear. The Trumpet, or Drum, which by certain Sounds and Beats, give notice to the Cavalry and Infantry, what is to be done. And the last is, The Hand, Colors, or other Signs, which inform the Eye; and these are called, Vocal, Semi-vocal, and Mute, and these must be perfectly understood, or else by mistake, or not knowing what to do, a Soldier may run into great Error, especially in Battel losing himself, and being the occasion of the loss of others: But of this more hereafter.

Note that when by the Beat of Drum, notice is given, after the Exercise is over, the Officers are again to advance their Arms, and so March through the Battalion, then place themselves in their former Posts at the Head of the Battalion, and at the same Instant the Serjeants of the Wing, and likewise the Drummers are to return to their former Posts.

Note further, and it must be observed for a General Rule, that no Motion must be made, nor any thing done, till such time as the last word of every Command in the Exercise that is to be given, be Intelligibly and fully delivered, and then the Soldier and Subalternates are to perform every thing, not only with a ready and complying Obedience, but with a Graceful Exactness and Readiness, that every thing, tho' done by many Men at once, may appear but as one Action or Motion, wherein all Disorder and Confusion is prevented, but to return.

When

When it happens that a Regiment has the Word of Command to draw out, then ought the Major, or Adjutant, to assign each Company its proper Post; and this must be done by placing the eldest Company upon the Right, and the next on the Left, and so in order to the youngest, who by this means will come into the Centre, and every Company, or Body of Men are to be drawn up in the beginning, at the same order they march at, as well in Rank, as File, the single Companies taking notice to leave so much room as the Serjeants and Drums may place themselves in, on the right and left of each Company: Then observe, before you form your Battalions, to draw up from every Company the odd Men, forming in Opposition, a Rank at fifty paces in distance from the head of each Company, that no broken Files may appear; and by this means with more speed and dexterity you may complete the Files.

The Battalions may be form'd, the Companies disposed in order, as aforesaid, by these Words of Command, *viz.* 1. Have a care to form the Battalion. 2. Musketeers, to the Right and Left outwards. 3. Pikes, to the Right and Left inwards. 4. March, interchanging Ground. Upon the interchange of Ground, by the Pikes and Musketeers, the first Rank of Pikes must pass before the first Rank of Musketeers; and it is ever to be noted, That after Command for moving of any kind, no Man stir till the Word, *March*, be uttered, so that they may move jointly, and not break the Order.

The Ground being changed, the Soldiers must forbear to face to their Leaders, till they be so Commanded; which done, they are in Battalia at close Order in File; and the Officers in this case, must have a regard to the whole, as not limited to their particular Companies, and the Commandent must take notice how many Serjeants are present; and if the Battalion contain 8 or 10 Companies, or a bigger number, and every Company 2 Serjeants, and 3 Corporals designed to do the duty of Serjeants, 2 must necessarily be placed on each Rank to the Right and Left, and the others must have their Stations in the Rear; but if the Serjeants be not so many, then there will be allowed but one to each Rank, to the Right and Left, and the rest in the Rear, making a Parallel Rank to the Soldiers, keeping 3 paces distance from the Rank.

The Serjeants thus placed, the Drums must stand one half on the Right, and the other half on the Left, that they may range directly with the first Rank of the Soldiers; but if the Drums be more than usual, and the Ground be strait, then they may be disposed in two Ranks, on the Right and Left, ranging with the two first Ranks of Soldiers, ever slinging their Drums, unless contrary Command be given. The *Haut-boys*, if there be any, are to take the right of the Drums, which are on the right of the Battalion, ranging with them in the same Ranks.

The Commission-Officers, according to the English Military Discipline, are to take their places at the Head of the Battalion, as the Colours

lours are drawn; but more of this hereafter. In this close Order, the Ranks, by the care of the Serjeants, are to have 12 large Feet distance between Rank and Rank, which must be kept very even, the Chief Commandent to place himself about forty paces distant from the Centre of the Pikes.

As to the Words of Command, they must be given with deliberation, lest Commanding too fast put the Soldiers beside their Exercise; Silence being Commanded, the next Word of Command is,

Files, open to the Right, (or to the Left) to your Order. March.

At these Words each Soldier turns to the hand mentioned, and after a short stand, the Flanking Serjeants lead the Ranks, (which by this means are Files) marching slowly forward by short steps; the Serjeants with advanced Halberts, the Iron uppermost; every Man, if they move to the Right, observing the left-hand Man, if to the Left, the contrary, and as soon as the last Man but one of the first Rank stirs, the Command is to be given for them all to Halt. And in proceeding to open Files after this manner, no Man ought to move till his Leader be at four Foot distance, and then to move with equal pace, and keep the distance; so that when Faced to the proper Front, there will be three Foot space between them: The Word of Command to Halt given, the Word of Command succeeding, is.

To your Leader.

In this case, the Captains and Lieutenants are

are to carry their Pikes comported, ever when they move to the Right, or Left; the Ensigns being advanced, the Ranks must also be kept even at twelve Feet distance, which is the Serjeants Care; the Files must likewise be at three Feet distance, each having regard to his right and left-hand Man.

To draw the Officers from the Front of the Battalion to the Rear; these words must be used, *viz.*

Have a care of the Exercise.

Upon this, the Musketeers are to draw off their right-hand Gloves, and stick them in their Girdles. The next Words are, *viz.*

Officers, take your Posts of Exercise in the Rear. March.

Upon this, the Officers must face to the Right-about, the Captains marching a pretty swift pace in the one Rank, and the Lieutenants and Colours in another, two paces behind; Captain and Lieutenants, carrying their Pikes Advanced; being in the Rear, the Lieutenants and Ensigns are to take their places in a Rank, twelve Feet from the Serjeants, the Captains thirteen paces from the last Rank of Soldiers, and the Lieutenants and Colours eleven; and at this Word of Command, or further Signal from the Officers, to take their Posts of Exercise in the Rear, six Serjeants of the Rear must march through the Intervals of the Files, posting themselves in the Front forty-six paces from the first Rank of Soldiers, being advanced six paces before the Chief Commandant, making by their ranging, a Parallel Line with the

the Battalion, keeping the Front free, and undisturbed, This Word being likewise given, the Pike-men must join their left-hands with their Pikes, placing them even with their Shoulder.

We suppose the Musketeers to have Shouldered, and the Pikes Advanced, none are to speak after Silence is Commanded, but the Officer in Chief, who thus proceeds:

1. Order your Pikes. 2. To the Right, 3. To the Right, 4. To the Right, 5. To the Right, 6. To the Right-about, 7. As you were; 8. To the Left, 9. To the Left, 10. To the Left, 11. To the Left, 12. To the Left-about, 13. As you were.

Words of Command for the Exercise of the Fire-lock and Pike.

1. **M**usketeers, have a care of the Exercise, and carry your Arms well.
 2. Join your right hands to your Muskets.
 3. Poise your Muskets. 4. Rest your Muskets. 5. Cock your Muskets. 6. Guard your Muskets. 7. Present. 8. Fire. 9. Recover your Arms. 10. Half bend your Muskets. 11. Clean your Pans. 12. Handle your Primers. 13. Prime. 14. Shut your Pans. 15. Blow off your loose Corns. 16. Cast about to Charge. 17. Handle your Chargers. 18. Open them with your Teeth. 19. Charge with Powder. 20. Draw forth your Scorers. 21. Shorten them to an Inch. 22. Charge with Bullet. 23. Ram down Powder

der and Ball. 24. Withdraw your Scow-
 rers. 25. Shorten them to a handful. 26. Re-
 turn your Scowzers. 27. Poise your Mus-
 kets. 28. Shoulder your Muskets. 29. Or-
 der your Muskets. 30. Pike-men, take heed
 31. Advance your Pikes, to the Front,
 Charge. 32. To the Right, Charge. 33. To
 the Right, Charge. 34. To the Right, Charge.
 35. To the Right, Charge. 36. To the Right-
 about, Charge. 37. As you were, Charge.
 38. To the Left, Charge. 39. To the Left,
 Charge. 40. To the Left, Charge. 41. To the
 Left, Charge. 42. To the Left-about, Charge.
 43. As you were, Charge. 44. Advance your
 Pikes. 45. Shoulder your Pikes. 46. Charge
 to the Front. 47. As you were, Charge to
 the Right, as you were. 48. Charge to the
 Right-about. 49. As you were, Charge to
 the Left, as you were. 50. Charge to the
 Left-about. 51. As you were. 52. Port. 53.
 Comport. 54. Charge to the Front. 55. Trail
 your Pike. 56. Charge as you were. 57. Ad-
 vance your Pikes.

When you Exercise thus, it must be done
 altogether, and not one after another, that a
 whole Battalion may seem to do but one and
 the same Action. Then to proceed, viz. Mus-
 keteers take heed, Poise your Muskets.
 Shoulder your Muskets. Musketeers
 make Ready; at what time all the Postures of
 the Musket are to be performed by the Muske-
 teers together; which readiness implys a Cock-
 ing, which must be guarded with the Thumb, lest
 it should go off unseasonably, and the Muskets
 brought

brought strait before them, with the left hand a little above the Chin. The Pike-men at the Word, *Make Ready*, are likewise to bear their Pikes strait before them, and recover their left hands the height of their Ears, both of them observing when they come to this Posture, to recover their Arms before them, that they bring their right Heels to their left Insteps; and when the Pikes Charge, and the Musketeers Rest, to retire, or fall back with the right Feet in a direct Line, observing in all Chargings, or Motions of the Pikes, or Muskets, to take care that they clatter not one against another.

An Explanation of the Words of Command, or Postures, in Exercising the Fire-lock Musket, and how they must be performed.

WHen you enter upon Exercise, whether ther it be Pike or Musket, you must observe to keep your Feet at a moderate distance, that you may, upon occasion, retain your full Force, ever keeping the left Heel firm, and set the right Feet: But as to the Exercise,

1. *Join your right hand to your Musket.*

In this Action, the Lock being uppermost, turn your Barrel towards you, and your Fingers being extended, lay your right hand just behind the Lock, then close the Butt end of your Musket to your Shoulder, so that it may in all parts be of an equal height.

2. *Posture*

2. **Boise your Musket.**

Here you must hold it with a hard grasp, facing to the Right, and turning with a quick motion upon your left Heel, keeping your Musket before you, the height of it between your Shoulders, your right Elbow on your side, and your Feet at a moderate distance, that turning about, the point of your left Toe may be to the Front, and that of your right, as you face to the left Heel, being directly against the middle of your right Foot; and so are you in a Resting Posture, &c.

3. **Rest your Musket.**

In performing this, let your Musket slide down to your left hand, letting down your Arm as low as possible, without stopping, receiving the Musket directly where the Scowrer enters into the Stock, suffering your hand to touch no part of the Barrel: let it be a little stooping about half a Foot from your side, keeping your right hand with your fingers extended behind the Lock.

4. **Cock your Musket.**

In this doing, place the Thumb of your right hand, and your Finger behind the Trigger, and clapping it against your Thigh, Cock, keeping, for the better security, your Thumb upon the Cock.

5. **Guard your Musket.**

In Guarding your Musket, bring it in the foregoing Posture with a very quick Motion strait before you, to the Recover, your left hand equal with your Mouth, but about half a Foot distance, not stooping, nor suffering your
Musket

Musket to sink, observing in bringing up the Musket, before which is a Recovering, to make the right Heel come to the left Instep, keeping your Musket right perpendicular.

6. Present.

In this case fall back with your right Leg, so that the left Heel be against the middle of the right Foot, suffering the Butt-end to rise to your Shoulder, setting it fast, your right Elbow even with the height of the Piece, being ever ready to pull the Trigger with the Fore Finger of your right hand, bending the left Knee a little, and keeping the right very steady, levelling Breast high.

7. Fire.

Here you must keep true motion in drawing the Trigger, doing it all together, so that the Fire of a Battalion may give but one Report, or appear to be no more than one Flash, the Body steady, and the Musket close to the Shoulder, till the next Word of Command, which is,

8. Recover your Arms.

Hereupon suffer the Butt-end of your Musket to sink in both hands, till it be perpendicular, the right under the Cock, and the left as high as your Mouth, always upon a Recovery, bringing it before you upon a very quick motion, turning the right Heel, so that it may come up with the left Instep.

9. Half bend your Musket.

With your right Leg fall back, let the Muskets rest at once, the right Thumbs being upon their Cocks, and the right Fingers behind

behind their Triggers; then closing to the Thighs, half bend, with your right hands placed behind the Lock, keeping them rested with Fingers extended.

10. Clean your Pan.

This you may do by pressing the Ball of your Thumb into the Pan, holding the right hand behind the Lock, that the posture may the better appear.

11. Handle your Primer.

In doing this, take the little end between your Thumb and Finger, turning the great end to the back of your Hand, your Arm bearing backward.

12. Prime.

Upon Priming, level your Piece exactly upon a Line, and having Powder a little bruised, strike it into the Pan as much as is convenient, the left Toe being kept upon the Front.

13. Shut your Pan.

Here use your two first Fingers, casting your Primer back, and drawing up your right Heel to your left Instep, your Musket strait up before you Recover, with the Barrel towards you, done with a quick Motion, the Thumb of your right hand on the top of the Steel, and the left hand as high as your Mouth.

14. Blow off your loose Cores.

In this case, bring your Pan within four Inches of your Mouth, and blow with a strong blast, observing to do it altogether, standing upright without declining the Head, casting
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ing upright without declining the Head, casting out your Arms, and suffering your Piece to sink from the posture it before was in.

15. Cast about to charge.

In doing this, let your right Leg advance, turning the Barrel of your Musket downwards, bringing it to your left side somewhat backward in your left hand, suffering none of your fingers to touch the Barrel, the Toe of the right Foot being directly to the Front, the right Heel over against the middle of the left Foot, the Musket ballanced in the left Hand, the Muzzle to a proper Front of an equal height, half a foot from your Body, your right Hand joyned to the Muzzle of the Musket, and your Thumb extended to the side of the Barrel.

16. Handle your Charger.

This must be done with a full gripe, holding it even with the Muzzle of the Musket underneath, about an Inch from it.

17. Open it with your Teeth.

Here bring it up to your Mouth without bowing your Head; then bring the Charger within an Inch of your Muzzle underneath, covering the Charger's Mouth with the Ball of your Thumb.

18. Charge with Powder.

Having put the Powder with a quick motion into the Barrel, hold the Charger underneath, as before.

19. Draw forth your Scowrer.

Upon this word, let fall your Charger, and by turning your hand, draw your Scowrer, or

Gun-stick, at three Motions, holding it level the height of your Fore-head, your Arm extended, as if you were about to dart it.

20. **Shorten it to an Inch.**

In this case, turning the great end of your Scowrer towards you, let it sink till within an Inch of the end, resting it against your Body somewhat below your right Breast, stooping.

21. **Charge with Bullet.**

Having a Bullet in your Mouth, take it out with your right hand, and put it into the Barrel, placing the great end of your Scowrer just at the Muzzle of your Musket.

22. **Ram down Powder and Ball.**

Take a full grasp with your Thumb and Fore-finger, from the Muzzle, your Thumb on the top of the Scower, keeping a handful in your hand.

23. **Withdraw your Scowrer.**

Your Hand, Thumb, and Fore-finger being turned towards the Muzzle, clear your Scowrer at three motions, and dart it as before.

24. **Shorten it to a Handful.**

Clap the small end of your Scowrer to your Breast, slip it to a Handful, holding it a little below your right Breast sloping.

25. **Return your Scowrer.**

Upon this, place it in its proper place, without expecting any word, grasp the Muzzle of your Musket with the right Hand, your Thumb being extended upon the Scowrer, keeping it half a Foot clear from your Side, the Muzzle directly to front all of a height.

26. **Poise your Musket.**

In this, with your left Hand before you bring

bring up your Musket, grasp it with your right under the Cock, falling with your right Leg to your left, keeping it Poised before your Nose, being faced to the Front, let your right Elbow rest upon your Body.

27. Shoulder your Muskets.

In this, take the rule that has been mentioned.

28. Poise your Muskets.

Do this as before shew'd.

29. Order your Musket.

In doing this, sink your right Hand a little, take hold of the Stock with the left Hand on the top of the Scowrer; then suffering the left to sink, take hold of the Muzzle with the right Hand, the butt end easily sinking near the Ground; when after a little pause let them all come down together; then close to the right Foot, place the butt end about the middle of it, the Lock outward, and your right Hand an Inch below the Muzzle.

30. Lay down your Musket.

Having turn'd it with the Lock upwards, you step forwards with your left Leg, and with your right Hand lay it on the ground, that it may lie in a straight Line with the rest, never laying it down with any other but the right Hand.

31. Quit your Musket.

Stand upright, by raising your self with a fall back of your left Leg to your right.

32. Handle your Musket.

Here to step forward with your left Leg, and lay your right Hand on the Muzzle.

33. Order your Musket.

Upon this word, raise the Muzzle, and fall back with your left Leg to your right, turning

the Lock outward by the middle of your Foot: And thus, in case of Fire Arms, the postures are little different, as will hereafter appear.

Instructions for Exercising the Pike, relating to the various Postures already mentioned in Command.

1. Pike-men take heed.

Advance your Pikes.

IN this case, move your Pike upward in a direct Line, with your right Hand near your side, your right Hand well near as high as you can reach, depressing your left Hand as low as you can, your Fingers strait out, and raise your Pike till the butt end comes to your right Hand, at what time place it between your Breast and Shoulder, keeping your butt end close, that it may be more firmly upright.

2. To the Front.

Place your left Hand on your Pike even with the top of your Shoulder, casting your fingers strait, bringing your Pike right before you with a very swift motion, drawing in your right Heel to your right Instep, keeping the Pike strait.

3. Charge.

In this posture fall back with your right Leg, suffering the Heel of your left Foot to

be against the middle of your right, and bring down your Pike with a quick jerk, support your Pike with your left Elbow, and charge breast high, bending your left Knee, upon yielding your Body forward to fix your self the firmer, holding the butt end in the palm of your right Hand, your left Toe directly pointing with the Spear of your Pike, set your Feet at a moderate distance, to stand the more firm, and bring your Pike down a little beneath your breast, beware of clattering, close it to your breast when it is Charged.

4. *To the Right*, Four times.

In this doing, turn your left Toe to the Right, then make your left Heel come up with your left Instep with a quick motion, recovering your Pike strait before you, then having turned, fall back with your right Leg, Charge, as before &c.

5. *To the right about.*

Here you must, by turning your left Toe, bring it to the Right about, bringing up your right Heel, your Pike recovered, then Charge, being turned with much quickness.

6. *As you were.*

Bring up your left Toe by turning to the Left about, then bringing your Pike recovered, your left Hand must never be higher than your Mouth, your Feet in Order; when being turn'd, you must fall back with your right Leg and Charge, bringing your Pike straight up without Clattering.

Charge breast high, the palm of your hand against the butt end open, and your left Elbow under the Pike, the left Toe directly with the Spear, and when you Charge, let it be directly forward, your left Heel being just against the middle of your right Foot.

13. Shoulder as you were.

In the first place, raise your Pike with both your hands, then quit it with the right, and with the left turn the head backwards, the Spear directly with the Rear; then seize it again with your right Hand as high as you can reach without straining, and stand with it from your Body aslope, bring up your right Leg, and forsaking your Pike with your left Hand, lay it on your Shoulder, always keeping the Spear in a direct point to the Rear, not any ways crossing others.

14. Charge to the Right.

Here you must fall back with your right Arm and Leg, keep the Spear in the Rear, sloped at the height of Shouldering, turning your left Toe to the right; let the right fall behind the left, that the middle of your right Foot may be over against your left Heel, and in this Action bring your Pike up, and turn backwards the butt end by your right side, then pressing it in the palm of your right hand, Charge.

15. Shoulder, as you were.

Make your left Toe come to the left, and the middle of your right Foot against your left Heel, with your Pike up, then turn the head of it to the right, viz. directly to the

Rear, doing it at one motion, then with your right Hand take hold of your Pike, so with both hands keep it a little distance from your Body slop'd, as when you Shoulder; then bring your right Leg up, and lay your Pike on your Shoulder.

16. Charge to the Right-about.

Here you must with your Hand and Leg give back, and stand with your Pike a little distance from your side, turn your left Toe to the Right-about, bringing the butt end of your Pike to the right Side, falling back with your right Leg, Charge, keeping the Spear of your Pike all the while to the Rear a Shouldering height, being careful not to mount the Spear of your Pike higher or lower, and when you are to face to the Right-about, level your Pike, and Charge.

17. As you were.

Upon this Word of Command, turn your left Toe to the Left-about, causing your right Foot to advance a moderate Step, so that the middle of it be placed against your left Heel, bring the butt end with your left Hand by your left Side, observing the Spear to be exactly with the Rear, the same height as in Shouldering, then as high as with ease you can reach, lay on your right Hand, and stand with it in form, after which bring up your right Leg and Shoulder.

18. Charge to the Left.

In doing this posture, fall back with your Leg and Arm, as has been shewed in the former Chargings, turn to the left Toe, and turn the

the butt end of your Pike with your left Hand to the Right, then bring up your right Leg, and Charge.

19. *As you were.*

Here you must raise the Spear with both your Hands, turning the left Toe to the Right; then fall back with your right Leg, and Arm, holding your Pike from your side, the Spear directly to the Rear; then bring up your right Leg and Shoulder.

20. *Charge to the Left-about.*

In this case, fall back with your Leg and Arm, then bring the Pike over your Head with both your Hands, keeping the Spear directly to the Rear, at the height of Shouldering, turn your left Toe to the Left-about, then bring up your right Foot, so that the middle of it may come with your left Heel, and Charge.

21. *Port.*

Do this, as charging the Front, but be cautious that you sink not the Spear of your Pike so low, resting it instead of the Elbow between the Thumb and Fore-finger, keeping the Elbow close to your side.

22. *Comport.*

In this doing, bring your left Hand backward as far as you may, stretching out the right, making thereupon a step forward with the right Foot, firmly grasping the Pike with the right Hand as far as you can reach, not tossing the Spear too high; this done, forsake it with your left Hand, bringing back your right Leg even with your Left, then close the
Pike

Pike to your side, keeping the Spear about the height of your Head.

23. Charge to the front.

In this, let your right Arm be extended at the same time, advancing your right Leg, putting back your left Hand as far as you can, bring your Pike forward, upon which give a step back with your right Leg, take hold of the butt end with your right Hand, then Charging, Charging ever breast high.

24. Traile.

Here, Face to the Right-about, suffering the Spear of your Pike to fall behind you, then let your right Hand be quitted from the butt end, without moving the Left; take care likewise, not to strike up the Spear.

25. Charge as you were.

In this Exercise, turn your self to the Left-about, take the butt end of the Pike on the palm of your right Hand, and Charge, keeping your Spear at an even height.

26. Advance your Pikes.

Here observe to bring your right Heel to your left Instep, and your Pike before you, to the Recovery, then fall out with your right Foot, till it come even with your Left, and by this means bring your Pike to your right Thigh.

27. Order your Pikes.

Raise your left Hand even with the top of your Shoulder, and lay it upon your Pike, your Fingers stretched out, then sink your left Hand, and raise your right, and so raise the Pike; that when the butt end is on the ground, your
right

right Hand may be against your Eye, setting the butt end to the Latchet of your Shoe, and keeping the Pike near your Head; and in this Exercise suffer all the butt ends to fall to the ground together.

28. Pikes, to your In-side Order.

In this doing, you must fix the butt end of your Pike on the in-side of your right Foot to the middle, moving only your Pike, and not your Foot.

29. Lay down your Pikes.

Step altogether with your right Legs, stoop altogether with a quick motion, and lay them very strait with your right Hands.

30. Quit your Pikes.

With your left Leg fall back, bringing it even with your right, stand up all together.

31. Handle your Pikes.

In this doing, step forward with your left Legs, in a quick motion, stoop all together, and extending your right Hands as far as you can reach, grasp your Pike.

32. Order your Pikes.

Raise the Pike with your right Hand, step back with your left Leg, clapping the butt end for the more easie raising, about the middle of your right Foot on the inside.

33. Pikes to your Out-side Order.

To do this, place the butt end of your Pike on the out-side your Foot, moving your Pike, and not your Foot.

34. Advance.

Do this as before. And thus have we given the Practitioner in Arms, the true Postures of

of the Musket and Pike distinctly, which with a little use, may perfect him in that which is so necessary to be understood by the Sons of Mars, from which we proceed to give further Instructions of this kind.

Directions for the Exercise of the Pike and Musket together, by a whole Battalion, or single Company; supposing the Pikes Advanced, and Muskets Shouldered: The word of Command given, is,

1. Musketeers make ready.

IN this, they must perform all the Postures and Motions together, till such time as they stand guarded with their Muskets before them, and their Thumbs, for the better security, on the Cocks; whereupon the Pikes are to be recovered before the Pike-men, the butt ends in the palms of their Hands, and the Spears upright, their left Hands no more than the height of their Mouths.

When the word **C**harge is given, then must they bring down the Muskets, and Pikes at once, being sure to turn the left Toes that way they Charge, and the Heel of the same Foot directly against the middle of the right Foot in every Charge, Charging directly forward; not at first Charging, the Pikes close to anothers Breasts, but Charge a little way distant in bringing
down

down the Pikes; and when they are Charged, then close them.

The Charge is, **To the Right** four times, then, **To the Right about**, after that, **As you were**; then **To the Left**, Charge four times, then, **To the Left about**, Charge; then, **As you were**; which you may observe in what has been laid down in the former Exercise.

Here the Pike-men must turn as the Musketeers, bringing up their right Heels to their left Insteps, extending their Arms as they turn, bringing their Musket strait before them their left Hand high as their Mouths, pulling back their Arms, and when they are faced, fall back with their right Legs; nor must they bring down their Arms till the Word, **Charge** is given, doing it with a quick Motion, and not suffering the Pikes to clatter.

Then the Word of Command is, viz.

Recover your Arms.

Half bend your Muskets.

Poile your Muskets.

Shoulder your Muskets.

} As before is noted.

Hereupon, the Muskets being Shouldered, the Pikes that stood Recovered, falling out with their right Legs, the Pikes are brought to their Thighs to their Advance.

Poile your Muskets.

This Command given, the Pike-men must fix their left Hands to their Pikes, about the height of their Shoulders. Then

Order

Order your Arms.

Pikes to your In-side Order.

Lay down your Arms.

Quit your Arms.

To the Right about.

March.

These must be observed, as is before directed in the Exercise, which, to repeat again, would be Tautology ; only thus much, when you are clear of your Arms, you must disperse, and upon the Beat of Drum, run thither again with a Huzza, your Swords drawn, and their Points upwards : Then these words of Command are given, *viz.*

Return your Swords.

Handle your Arms.

Order your Arms.

Pikes to your Out-side Order.

Advance.

These things ought to be duly considered ; and in this first place, in ordering your Arms, observe to make a little stop, before the butt ends come to the Ground, that they may fall together at once ; after the Arms are laid down and quitted, you must all stand up together, as if it were but one motion.

Upon marching from your Arms, step Front and Rear together with the left Feet, and march but a little distance.

Your right Hands being laid on your Swords, take hold of your Scabbards with your left, and your Swords being drawn, you must hold them upright before you, bringing them down at one motion ; and when by Command you have

have returned your Swords, stand upright to your Arms, looking to your proper Front. As for the rest, we refer you to the Exercise of the Pike, and Musket distinctly.

Several things to be observed in Command, and Exercise, relating to the Match-Lock Musket, &c.

THE Match-Lock Musket, in all the material parts of Exercise, is the same with the Fire-Lock; but some other things being to be observed, we shall lay them down for the ease of the Reader, and this chiefly consists in keeping your Match well with a good Coal, fastning it upon Command, advantageously in your Screw, blowing the Coal, and trying your Pan by false Flashes, laying it down at Command, taking it up again, shortening it to the Pan, that it may give true Fire: But more to the particulars.

1. *Lay down your Matches.*

Do this at Four Motions; First, by a little turning the butt end of your Musket, easily slipping on your Shoulder, lay then your right Hand on your Match, and extend your right Hand and Foot, before you recover your Musket in its place. Thirdly, Stoop, and bring your Match near the right Foot, within-side, suffering your Ham to bend a little, Lastly, Quit it, and bring your Body upright, and your right Foot even with your left.

2. *When*

2. When the Command is given, *viz.*

Handle your Match; Then having recovered it, bring it between your Third and Fourth Finger by the help of your Thumb and First Finger, always using your right Hand; then the Palm being turned from you, you stretch your Arm toward your right-hand Man.

3. **Blow your Match.**

Here bring your Match to your Mouth, not stooping, but turning your Head a little to the right, having given a Blast to carry off the Ashes, cast off your Arm to the right.

4. **Cock, and try your Match.**

In this case, fetching a compass with your Arm, bring your Match to the Cock, and supporting it with your two near Fingers, press it down with your Thumb, guiding it with your middle Finger; when keeping your middle Finger between it and the Pan, pull your Cock down as low as the Pan, and sink, or raise your Match that it may hit the middle of the Pan, and having fired, when you hear the word, **Return your Match.**

Hold your Musket in your left Hand, the Barrel towards you, suffering your left Elbow to rest on your Body, then take your Match beteen your Thumb and Finger, in the right Hand, placing your Thumb on the top of it, the Palm being turned from you, placing one end of your Match between the Third and Fourth Finger of your left Hand, and the other end press with the First and Second Fingers, then with extended Fingers place your right Hand under the Pan.

Note

Note that in the use of forming Battalions, and posting in the Foot, to avoid any difference that may arise, they are to place themselves according to their Commissions, *viz.* The Colonel or First Company on the Right Wing: The Second, or Lieutenant Colonel's Company on the Left Wing: The Major's, or Third Company, on the Right Wing, next the First, or Colonel's Company: The Eldest Captain is to take place, or the Fourth Company upon the Left Wing, next the Lieutenant Colonels, or Second Company; and all the other in the same manner, till the Youngest Company remains in the Center.

And so when the Companies are Marching to the Ground where they are to Form the Battalion, the Pikemen in their March, must advance their Pikes, and always take their place on the Left Hand of the Musketeers of their Company, and in all their shiftings, they will fall into right order, and carry every thing proper in their observance of Military Discipline, so that with the practice of the foregoing Directions and Words of Command, their Experience will be approved.

This is all that is material as to the Match, the other postures of the Musket being the same with the Fire-Lock already mentioned. Only you may observe in all swift Motions, to do them in the time you say, 1, 2. and those that require not such swiftness in the Exercises of your Arms, in the time you say, 1, 2, 3.

Directions for the Exercise of Foot Granadiers.

THough the Granadiers in many things differ from the Musketeers in Exercise, yet for the better part they do the same, drawing up in the same Order, Rank and File, only they seldom draw up above three deep, and supposing them to be Shouldered. The Words of Command are,

Lay your right Hands on your Fire-Locks.

1. Poise your Fire-Locks.
2. Rest your Fire-Locks.
3. Cock your Fire-Locks.
4. Guard your Fire-Locks.
5. Present.
6. Fire.
7. Recover your Arms.

All these are to be done in the samemanner as the Exercise of the Fire - Lock Musket.

8. Cast over to the Left.

In doing this they are to lay their right hands on their Daggers.

9. Draw your Bayonets.

Here they must draw their Bayonets, and hold them upright in their Hands before them.

10. Screw

10. Screw it into the Muzzle of your Fire-Locks.

Do this so, that the flat side may be towards you, when you have recovered.

11. Return your Arms.

12. Charge to the Right (four times.)

13. To the Right-about, Charge.

14. As you were.

15. To the Left, Charge, (four times.)

16. To the Left-about, Charge.

17. As you were.

18. Recover your Arms.

These are to be done with a quick Motion, after the manner of the Fire-Lock Musket.

19. Cast to the Left.

Upon this; they are to seize their Bayonets with their right Hands.

20. Withdraw your Bayonets.

Hereupon, hold them directly before you, the flat side to your Body.

21. Return your Bayonets.

Upon this, put them up into the Scabbard.

22. Poise your Fire-Lock.

23. Half bend your Fire-Lock.

Do these as the Musketeers do the Fire-Lock.

24. Open your Cartridge-Box, and handle your Primer.

These are easily understood; and need no direction.

25. Prime.

26. Return your Primer.

27. Shut your Pan.

28. Blow off your loose Cores.

29. **Cast about to Charge.**

Do all these as the Musketeers.

30. **Handle your Cartridge.**

31. **Open it with your Teeth.**

32. **Charge with Powder and Ball.**

33. **Draw forth your Scowrer.**

34. **Shorten it to an Inch.**

Here, by the Cartridge is meant the Charge of Powder, made up in a Paper fit for the Piece, so that the Bullet being placed on the top of it, they may be put in together.

35. **Ram down Powder and Ball.**

36. **Withdraw your Scowrer.**

37. **Shorten it to a Handful.**

38. **Return your Scowrer.**

39. **Poile your Fire-Locks.**

Do these as the Musketeers do, according to the Instructions laid down, in their Exercise.

40. **Shoulder your Fire-Locks.**

Upon this Command, the Ranks are to close forward at six Foot; it being the Serjeants care to place their Halberts at a due distance.

41. **Poile your Fire-Locks.**

Upon this, over what the Musket requires, seize the Sling with your Left hand.

42. **Sling your Fire-Locks.**

43. **Handle your Pouches.**

In handling your Pouches, let your left hands, be on the bottom, all of a height, advancing the right Legs, and the right Hands being of an equal height.

44. **Open your Pouches.**

Do this altogether.

45. **Take**

45. **Take forth your Granado's.**

Do this with the right hand extended before you.

46. **Shut your Pouches.**

Do this all at once.

47. **Uncase your Fuze.**

Doing this, step back with the right Foot to the left, facing.

48. **Handle your Match.**

Do this with the left hand to the left side, extending your Arms, doing it nimbly altogether.

49. **Blow your Match.**

In this, the first Rank must fall back with their right Legs altogether, giving a strong Blast.

50. **Fire your Fuze.**

51. **Deliber your Granado.**

At this last Word of Command, the second Rank must advance six foot before the first, with their Match ready to blow; and when they have observed the Words of Command, the third must advance before them; when upon the Word, **Blow your Match**, the first and second Ranks are to lay their hands upon their Hatchets; and upon the Word **Fire your Fuzes**, they are to raise their Hatchets; and upon that of **Deliber your Granado**, the Sergeants must be careful that the first Rank stands, the second Marches six Foot before the first, and the third six Foot before the second, expecting the Word of Command with their Hatchets raised, at what time the first Rank must raise theirs likewise.

Fall on.

In this case, they must handle them fast, bringing them down.

Return your Hatchets.

Upon this you must put them into the frog of your Belt, by your side.

Poise your Fire-Locks.

Shoulder your Fire-Locks.

} Do these as
in case of the
Fire - Lock
Muskets.

Granadiers, make ready.

In this, the first Rank make ready their Fire-Locks, and the second Rank handle their Pouches, and the third their Hatchets.

The first Rank Present.

At this Word of Command, the second Rank must open their Pouches, take thence their Granado's, whilst the third raise their Hatchets.

Fire.

Upon this Word of Command, the second Rank must shut their Pouches, uncase their Fuzes, and handle their Match.

Recover your Arms.

Here without any further Command, the Granadiers of the first Rank must cast over to the Left, Draw and Screw their Bayonets into the Muzzles of their Pieces, recover their Arms, and Charge; the second Rank to advance six foot before them,

Blow your Match.

Fire your Fuze.

Deliber

Deliber pour Granado.

Upon this Command they Poise their Fire-Locks, and make ready, whilst the third March as the second with their Hatchets.

Fall on.

Recover pour Arms.

At this last, the third Rank must March twelve foot before the first Charging, the second at six, the first returning their Hatchets, and making ready their Fire-Locks.

Recover pour Arms.

Upon this, they half bend their Fire-Locks.

Cast over to the Left.

Withdraw pour Bayonets.

Return pour Bayonets.

Poise pour Fire-Locks.

Shoulder pour Fire-Lock.

Face to the Right-about.

March.

Upon this last, 'tis the Serjeants Duty to be careful, that forward, the Ranks open to twelve foot, and that they so continue Marching till they come to their Ground, where they must halt without any Word of Command.

As you were.

Poise pour Fire-Locks.

Order pour Fire-Locks.

Tap down pour Fire-Locks.

Quit pour Fire-Locks.

Face to the Right-about.

March.

In these
observe the
Posture of
the Mus-
ket.

Fall on.

In this case, they must handle them fast, bringing them down.

Return your Hatchets.

Upon this you must put them into the frog of your Belt, by your side.

Boile your Fire-Locks.

Shoulder your Fire-Locks.

} Do these as
in case of the
Fire - Lock
Musket.

Granadiers, make ready.

In this, the first Rank make ready their Fire-Locks, and the second Rank handle their Pouches, and the third their Hatchets.

The first Rank Present.

At this Word of Command, the second Rank must open their Pouches, take thence their Granado's, whilst the third raise their Hatchets.

Fire.

Upon this Word of Command, the second Rank must shut their Pouches, uncase their Fuzes, and handle their Match.

Recover your Arms.

Here without any further Command, the Granadiers of the first Rank must cast over to the Left, Draw and Screw their Bayonets into the Muzzles of their Pieces, recover their Arms, and Charge; the second Rank to advance six foot before them,

Blow your Match.

Fire your Fuze.

Deliber

Deliver your Grenado.

Upon this Command they Poise their Fire-Locks, and make ready, whilst the third March as the second with their Hatchets.

Fall on.

Recover your Arms.

At this last, the third Rank must March twelve foot before the first Charging, the second at six, the first returning their Hatchets, and making ready their Fire-Locks.

Recover your Arms.

Upon this, they half bend their Fire-Locks.

Cast over to the Left.

Withdraw your Baponets.

Return your Baponets.

Poise your Fire-Locks.

Shoulder your Fire-Lock.

Face to the Right-about.

March.

Upon this last, 'tis the Serjeants Duty to be careful, that forward, the Ranks open to twelve foot, and that they so continue Marching till they come to their Ground, where they must halt without any Word of Command.

As you were.

Poise your Fire-Locks.

Order your Fire-Locks.

Tap down your Fire-Locks.

Quit your Fire-Locks.

Face to the Right-about.

March.

In these
observe the
Posture of
the Mus-
ket.

Here observe, that when you are clear of your Arms, you are to disperse, and upon the Drum beating, you must hast to your Arms with a chearful Huzza, your Daggers drawn, lifted with their Points upwards.

Return your Baponets.
Handle your Fire-Locks.
Order your Fire-Locks.
Poise your Fire-Locks.
Shoulder your Fire-Locks.

Observe these as the Exercise of the Musket, Fire-Lock, and the rest, as they have been laid down, and you may grow expert.

Considerations of the Drum, so necessary in the Exercise of the Foot; what relates thereto.

THE Drum has been very antiently used in War, and always approved by the greatest Captains; the Souldiers understanding thereby, what they are to do in many points, as well as by the voice of their Commander, and therefore it is called semi-vocal, and gives directions of sundry kinds in these six points of War more peculiarly distinguished, viz.

1. The Call. 2. The Troop. 3. The March.
4. The Preparative. 5. The Battaile. 6. Retreat.
And of these in their Order.

1. The

1. The *Call* is to bring the Soldiers together to their Arms upon deliberate or urgent occasions, or to hear any Proclamation or Orders that are to be given by the Officers; so the Soldiers ought not, especially in time of War, on great Penalties, to ramble beyond the hearing of it, unless they be sent upon Parties, or by some Express, with the Knowledge and Approbation of the General, or Officer in Chief.

2. The *Troop* being beat, the Souldiers must incontinently shoulder their Muskets, and Advance their Pikes, closing their Ranks and Files to Order, following their Officers to the place of Rendevouse, or elsewhere.

3. The *March* beaten, you must observe to take your open Order in Rank, shoulder both Musket and Pike, and March quicker, or slower, as the Drum beats.

4. The *Preparative* is to warn you, that you close your due distance in preparing for Battel, or Skirmish, and see that nothing be out of Order that may turn to your Advantage or Hindrance; for a Battel seldom succeeds well where the Order is not observed with the greatest Exactness.

5. The *Battaile* is that which is usually called the Charge, or Signal to Charge the Enemy; so that upon this the Soldier must raise his Spirit to the highest pitch of Fury, though with caution; for Valour and Prudence ought to go hand in hand, if you would attain to things Noble and Great.

6. The

6. *The Retreat.* This is beat when at any time the Enemy is too strong, or by drawing off to better your Ground, you may gain a better Advantage, or expect greater Succour; as when an Out-guard or Party finds it self over charged, it Retreats to the main Body; or when on a sudden, an advanced Party espies an Ambushment.

Besides these, there are two others used but they are not properly called Points of War, *viz.*

The Tattoo, or Taptoe, and the Revally.

The first of these is used in a Garrison, or upon the Rounds, both to warn the Soldiers and Inhabitants, when they ought to repair to their Quarters, or Guard, and when to shut the Doors, that so if any Spies be abroad they may be the better distinguished; for when the *Taptoe* is returned to the Body of Guards, a Warning-piece ought to be shot off, after which no person ought to be out of his Quarters, or from his Post, unless the Watch-word be given him.

The *Revally* takes, as is most likely, its Denomination from the French word *Reveiller*, which signifies as much, as to arise up, or awake from sleep; for this is beaten in the Morning, to give notice to the People, that they may be safely abroad, at which time the Out-Centinels are taken off.

There are of late other things signified by the Drum, as the manner of Exercise, but it being

being mostly according to Humour, the Drum-Majors ought to give it to every File-leader in writing, that so he may be able to direct his File by his Example, what they are to do till the Soldiers are perfect in it, and the reason why we so direct is, because it is variable, and not so substantial as the Word of Command.

There are at this day in many Regiments *Hautboys* used instead of the Ancient *Flutes*, but they have no significant Sign, being only to chear and raise the Spirits of the Soldiers, that their Labour may seem the less.

The Exercise of Dragoons, or Musketeers on Horse-back.

IN this, to shorten any tedious Prologue or Intricacy, we will suppose the Dragoons to be ready in the Field, drawn up in three Ranks, having advanced their Muskets, the Officers taken their Stations, and all things in a readiness for the Word of Command.

1. Dragoons have a care.
2. Sling your Muskets.
3. Make ready your Links.
4. Clear your right Foot of your Stirrup.
5. Dismount.

Here they stand ready at their Horses heads, and the six out-side Men continue Mounted, that they may hold and guard the Horses.

6. Link your Horses to the Left.

7. March

6. *The Retreat.* This is beat when at any time the Enemy is too strong, or by drawing off to better your Ground, you may gain a better Advantage, or expect greater Succour; as when an Out-guard or Party finds it self over charged, it Retreats to the main Body; or when on a sudden, an advanced Party espies an Ambushment.

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2. Sling your Muskets.
3. Make ready your Links.
4. Clear your right Foot of your Stirrup.
5. Dismount.

Here they stand ready at their Horses heads, and the six out-side Men continue Mounted, that they may hold and guard the Horses.

6. Link your Horses to the Left.

7. March

7. March clear off your Horses, and Shoulder as you March.

8. Halt.

Upon the Words of Command, the Battalion by the care of the Officers, is to be formed as the Foot, *viz.*

1. Have a care of the Exercise.

2. Officers to the Right-about.

3. Take your Posts in the Rear of the Battalion.

4. March.

In this Ordering, the Serjeants and Corporals must fall into the Flank, and Rear of the Battalion, and the Commission Officers form a Rank in the Rear.

5. Dragoons have a care.

Upon this they must pull off their Gloves off the right hand, and stick them in their Girdles.

6. Lay your right Hand to your Muskets. 7. Poise your Muskets. 8. Rest your Muskets. 9. Cock and Guard. 10. Present. 11. Fire. 12. Recover your Arms with the Cock half bent. 13. Rest upon your Muskets. 14. Handle your Baponets. 15. Draw forth your Baponets. 16. Fix them in the Muzzle of your Muskets. 17. Poise your Muskets. 18. Charge to the Front. 19. To the Right, Charge, (four times) 20. To the Right about, Charge. 21. To the Left-about, Charge. 22. To the Left, Charge (four times) 23. To the Left-about, Charge. 24. To the right about, Charge. 25. Recover your Arms. 26. Rest upon your Muskets. 27. Handle your Bap-

Baponets. 28. Withdraw your Baponets. 29. Place your Baponets. 30. Poise your Muskets. 31. Rest your Muskets. 32. Clean your Pans. 33. Open your Cartridge-Box. 34. Handle your Primer. 35. Sink and Prime. 36. Return your Primer. 37. Shut your Pan with your Fore-fingers. 38. Blow off your loose Corns; At which time you must recover your Arms. 39. Cast about to Charge. 40. Handle your Cartridge. 41. Take out your Cartridge; which done, you must presently shut the Box. 42. Open them with your Teeth. 43. Charge with Powder and Ball. 44. Draw forth your Scowzers. 45. Shorten them to an Inch. This must be done against your Breast. 46. Put it into the Muzzle of your Musket. 47. Ram down Powder and Ball. 48. Withdraw your Scowzer. 49. Shorten it to an Inch, as before, 50. Place your Scowzer. 51. Poise your Muskets. 52. Shoulder your Muskets. 53. Poise your Musket. 54. Rest your Muskets. 55. Lay down your Arms. 56. Quit your Arms. 57. To the Right about. 58. March clear off your Arms and break: Being marched clear off the Arms, they must offer, as if they dispersed; but upon the first beat of Drum, they must swiftly return with a Huzza, every one drawing (in that Motion) his Sword; then each must stand over his own Arms, to expect further Command, viz. 59. Return your Swords. 60. Handle your Arms. 61. Rest upon your Arms. 62. Poise your Muskets. 63. Sling

Sling your Muskets. 64. To the Right about. 65. March to your Horses. 66. Unlink your Horses. 67. Shorten your Bridles. 68. Put your left Foot in your Stirrup. 69. Mount. 70. Fasten your Links. 71. Unslung and Advance your Muskets.

Though this Exercise is for the most part like the Exercise of the Fire-Lock Musket, on Foot, whether to know any thing difficult we refer you, yet these are many times obliged to fight on Horse-back, as being appointed, and necessary, for the succour, either of Horse or Foot, as Occasion or Advantage offers; therefore it will be requisite to speak something of their firing on Horse-back.

*The Exercise of Dragoons on Horse-back
as to their Firing, &c.*

THE Dragoons having advanced their Muskets on the right Thigh, must expect the Word of Command, *viz.*

1. Topy your left hand to your Musket.
2. Cock and Guard.
3. Rest your Muskets on your Bridle hand.
4. Present.
5. Fire.
6. Recover your Arms, with the Cock half bent.

This being observed, they are in a posture
to

to March, Wheel, or Face, as shall be Com-
manded, or seem most Expedient.

These Dragoons were at first entertained for
swift Marches, passing deep Ways or Waters,
to keep equal pace with the Horse, till the Foot
at more leisure could come up; but being since
found very necessary to defend against the shot
of the Musketeers, they have been continued,
and are no more than a kind of Musketeers on
Horse-back.

*Granadiers on Horse back, what their Exer-
cise is, and how to perform it with Dexte-
rity, &c.*

THese, as the Dragoons, often fight on Foot,
and therefore, though, when they are
on Horse-back they may be Exercised as the
Horse; yet it is most convenient when-
ever they March, Wheel, Face, or Halt, that
they do not bear up too close, nor do it in
thick Files, but between every File leave three
foot distance, the easier to dismount, and March
clear off their Horses, or Face about as occasion
shall require; when in this manner being
marched into their Arms, Loaden, Hats on,
and the word to Halt given, the Command-
ing Officer having bid Silence, must thus pro-
ceed, viz.

1. Granadiers have a care. 2. Sling your
Muskets. In this doing, have your left hand
upon your Sling 3. Put on your Caps. 4.
Right

Right and Left-hand Men of each Rank,
 keep Mounted. 5. Clear your Right Foot
 of the Stirrop. In this case they must handle
 their Muskets, casting them backwards. 6.
 Dismount. This must be done altogether
 with a quick Motion. 7. Make ready your
 Links. 8. Link your Horses to the Left.
 9. March clear off your Horses. This may be
 done by a third or second Rank, Marching
 through as soon as clear, handling at the same
 time their Muskets. 10. Halt. 11. Lay your
 right Hands on your Muskets. 12. Poise
 your Muskets, facing to the Right. 13.
 Rest your Muskets. 14. Cock and Guard
 15. Present. 16. Fire. 17. Recover your
 Arms. Here you must have your Muskets
 half bent. 18. Cast about to the Left. 19.
 Draw your Bayonets. 20. Fix them in your
 Muskets. 21. Recover your Arms. 22.
 Charge to the Front, 23. To the Right,
 Charge (four times) 24. To the Right-about,
 Charge. 25. As you were. 26. To the Left,
 Charge (four times.) 27. To the Left-about.
 28. As you were. 29. Recover your Arms.
 30. Cast about to the Left: Hold: on this
 word of Command lay your right hands on
 your Bayonets. 31. Withdraw your Bayo-
 nets. 32. Return your Bayonets. 33. Poise
 your Muskets. 34. Clean your Pan. 35. O-
 pen your Cartridge Box. 36. Take out
 your Primer. 37. Prime. 38. Return your
 Primer. 39. Shut your Pan. In doing this,
 bring your Piece up quick before you 40. Blow
 off your loose Cozns. 41. Cast about to
 Charge

Charge. 42. Take out your Cartridge, immediately shutting the Boxes. 43. Uncap your Cartridge with your Teeth. 44. Load with Powder and Ball. 45. Draw forth your Scowrer. 46. Shorten it to an Inch. 47. Place it in the Barrel. 48. Ram home Powder and Ball. 49. Withdraw your Scowrer. 50. Shorten it to a handful. 51. Return your Scowrer. 52. Poise your Musket, (Do this before you.) 53. Shoulder your Muskets. Upon this word, seize the Slings with your left hands. 54. Sling your Muskets. 55. Handle your Pouches; the same with the Foot Granadiers. 56. Open your Pouches. 57. Take forth your Granadoe. In doing this, extend your right hand before you. 58. Shut your Pouches. Do this, that it may appear but one Motion, the left hands being held up all at a height. 59. Uncase your Fuze. In doing this, you must face to the Front, having fallen back with your right Leg, bringing it even with the Left. 60. Handle your Match. 61. Blow your Match. 62. The first Rank fire your Fuze. 63. Deliver your Granadoe. Upon this Delivery unslung your Muskets.

At this Command, the second Rank must advance through the Right, having their March in Order, ready to blow, and place themselves six Foot before the Rank.

64. Blow your Match. 65. Fire your Fuze. 66. Deliver your Granadoe. Upon this, your Musket being unslung, you must stand ready Cock'd and Guarded; then the third

Rank is to March on the Right, six Foot Frontward of the second. 67. **Blow your Hatch.** 68. **Fire your Fuze.** 69. **Deliver your Cannonade.** This done, unslung and stand Cock'd and Guarded; and upon this Command, the first, or proper Front must speedily March through at six Foot distance. 70. **First Rank Fire.** After this Word, the first Rank must fix their Daggers in the Muzzles of their Muskets, and the second and third must imitate the first successively, as the same Words of Command come to their turn. 71. **Recover your Arms.** 72. **Cast about to the Left.** 73. **Withdraw your Baponets.** 74. **Poile your Muskets;** doing it to the proper Front. 75. **Shoulder your Musket.** 76. **To the Right-about.** In doing this, take up your first Ground in your March, opening your Ranks. 77. **To your Leader.** 78. **Poile your Muskets.** 79. **Rest upon your Arms.** 80. **Tap down your Arms.** 81. **To the Right-about.** 82. **March.** In Marching, the Ranks must be broken in manner of dispersing, then upon beat of Drum, you must draw your Swords, Face about, Recover your Order, and return to your Arms with a Huzza. 83. **Return your Swords.** 84. **Handle your Arms.** 85. **Recover, and Poile.** 86. **Shoulder your Muskets.** 87. **Poile your Muskets.** 88. **Face to the Right-about.** 89. **Sling your Muskets.** 90. **March to your Hozles.**

In this last Performance, the second and third Ranks must March, and standing at their Horses Heads, Face to the Front,

91. Unlink your Horses. 92. Fasten your Links. When this is done, you must shorten your Bridles. 93. Put your Feet in the Stirrups. Here you must lay your Muskets over your Saddles. 94. Mount your Horses. This must be done altogether, as if it were but one Motion, and the Officers, whose Business it is, are to see the Ranks compleated in good Order. 95. Handle your Swords. 96. Draw your Swords. 97. Place your Swords. Here you must put your Sword into your Bridle-hand. 98. Handle your Pistol, which must be ever the Left. 99. Draw your Pistol. 100. Cock your Pistol. Here you must keep the Cock guarded with your Thumb. 101. Present. In doing this, bear up your Hand even with the Cock. 102. Fire. Here you must observe not to take down your Pistol, till the next word of Command, which is, 103. Return your Pistol; and the same Order must be observed upon drawing the right Pistol, till you return it, &c. 104. Handle your Muskets. 105. Unsling your Muskets. 106. Mount your Muskets.

If you are to Charge on Horse-back with the Musket, which is not done but upon great occasion, the Piece being Charged, the Words of Command are, *viz.*

1. Cock your Muskets. 2. Present your Muskets. 3. Give Fire. In this doing, you must keep your Musket in its posture, till the next Word of Command, *viz.* 4. Sling your Muskets. 5. Handle your Swords. Do it by taking your Swords in your right Handes 6.

March. In Marching, the Officers Commanding, may bring them to any moving posture, as Wheeling, Facing, &c. by giving his Words of Command with such deliberation, that those who are more peculiar to take Notice, may see each Individual Party perform his Exercise, and that they manage their Horses as they ought.

These Instructions put in practice, may greatly forward the young Soldier; though indeed, a heedful practise is the Life of Exercise.

The Exercise of Horse, so properly called:

THough, as to the Words of Command in Exercise, they are not many, yet various are the Actions to be performed by them, as after we have given an Account of the known Words of Command shall be shewed at large, and in this case, when a Squadron or Troop is appointed to Exercise, having their Carbines, and Pistols Loaden; the Corporals must pass through the Ranks, and see that they are all ready; which done, the Chief Officer Commands Silence, and gives the Words,

viz.

Tap your right Hands on your Swords.

Draw your Swords.

Put your Swords in your Bridle-hands.

Tap your Hands on your Pistols.

Cock your Pistols.

Hold

Hold up your Hands.

Give Fire.

When you have given Fire, you must not let your Pistol-hand fall, till the next Word of Command be given, viz.

Return your Pistols.

And this you must observe, in Firing the right and left again.

Lay your hands on your Carbines.

Advance your Carbines.

Cock your Carbines.

Fire.

Let fall your Carbines.

Take your Swords from your Bridle-hands.

Return your Swords.

These Motions must be exactly observed, every Man doing each particular Motion at one and the same time; the Word of Command for that purpose being given deliberately, that there may be no mistake.

In drawing up a Body of Horse, that is, when the Body is drawn up, the Officers that Command not in Chief, ought to keep close to their Men; but the Chief Commandant must be about a Horse's length before them, to see more exactly what is done; and so it must be observed in Marching.

It is further to be Noted at this day, that when a Squadron of Horse is to Wheel; if to the Right, the right-hand Men must not close to the Left, as formerly, for that puts the Rank many times out of Order, but they must keep their Ground, suffering the left to come about,

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Draw your Swords.

Put your Swords in your Bridle-hands.

Tap your Hands on your Pistols.

Cock your Pistols.

Hold

Hold up your Hands.

Give Fire.

When you have given Fire, you must not let your Pistol-hand fall, till the next Word of Command be given, viz.

Return your Pistols.

And this you must observe, in Firing the right and left again.

Lay your hands on your Carbines.

Advance your Carbines.

Cock your Carbines.

Fire.

Let fall your Carbines.

Take your Swords from your Bridle-hands.

Return your Swords.

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It is further to be Noted at this day, that when a Squadron of Horse is to Wheel; if to the Right, the right-hand Men must not close to the Left, as formerly, for that puts the Rank many times out of Order, but they must keep their Ground, suffering the left to come about,

whilst they only turn their Horses Heads, observing their left hand Men.

This may serve for the Motions, which the Officers are to take care of; yet there remains many other curious Matters, to which we proceed.

To Close the Files.

1. If you would be at close Files. To close your Files, The right Wing File stand. Close your Files. To the Right. To the Left. As you were. To the left Wing, and stand. To the Left, by Files, close the Squadron. To the Right. As you were. The right and left Wing Files stand, By half Ranks, close Files to the right and left; or by closing Files, you may cleave the Squadron.

The manner of Closing the Ranks.

File-Leaders stand. By Ranks, close the Squadron to the front. On the front, as you were; or open to the Ranks on the front to the first distances.

The manner of Doubling Ranks.

By half Files, to the Right, Double your Ranks to the front.

File-Leaders, Advance your Rank. Half Files, take your Ground. In this manner you may Command to the Left.

The

The first half File stand. By half File Leaders on the Left Wing, double your Ranks to the Front.

Now, if you would reduce this again, observe the following Command, *viz.*

Right Wing half Rank, Advance your Ranks. Half File-leader, take your Ground. The first half File stand. By half File Leaders on the right and left Wings; then double your Ranks to the Front, Carocoling to the right and left; then the last half File stand, and the first half File by Carocol to the right and left on the Wings; after this double your Ranks to the Rear.

Here the first half File must open the half Rank to the Right and Left. The first half File by Carocol. To the Right and Left, double your Ranks to the Rear.

In this case, let the last half File open the half Rank to the Right and Left; and since these Words Carocol and Conversion may appear difficult to understand, it will be convenient to explain the Motion.

When you are to Wheel by Carocol, observe that is made by the depth or flank of the Squadron, by which means the Rank, and not the File makes the Motion.

Conversion in Wheeling is performed by the Front of the Squadron, by which means the File remains, whilst the Rank makes the Motion.

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Directions

*Directions for Wheeling by Conversion,
with the Word of Command.*

WHen we say to the Right, by Conversion, it is to be understood, That you ought to close your right Leg to the Horse, your Knee touching that of the right-hand Man's; and so you must do in the word of Command, to the Left; as when we say, Close to the left Wing, then must the left Leg be closed.

By half Ranks, and by Conversion, divide the Squadrons into two Troops.

In case you would reduce the Squadron, The Command is,

By Conversion, the Squadron into one Troop, or the left Wing, Advance by Conversion.

In Wheeling by Carocol, the Words of Command are, viz.

The right Wing to the left by Carocol, face about to the Rear: Or, it may be performed by half Ranks, viz.

By Quarter Ranks, and by Carocol divide the Squadron into three Troops. Then if you would reduce them, order Quarter Ranks and Squadrons into one Troop.

If you are Commanded, the Volt, Face, or Facing about, observe it in this manner.

Face about to the Right, Face to the Right by Controversion, Face about to the Right by Carocol, Face about to the Left
by

by half File, Face about to the Right and Left.

In case in Hay you are to be drawn up, observe this Order.

By half Ranks, to the Right and Left draw up in Hay, to the Front; and if to be reduced again, the Proceeding is thus, By Carocol, To the Right and Left. As you were. By half Ranks, and by Carocol, To the Right and Left. Draw up in Hay to the Rear. Reduction, here the Command is, To the Front. As you were. By half Ranks, to the Right and Left, draw up in Hay. Reduction, By Carocol, to the Right and Left. As you were. By Carocol, to the Right, draw up in Hay. Reduction, By Carocol, to the Left. As you were.

The Order of causing Horses to File off.

File by Ranks on the right Wing, on the left Wing from the Squadron. File off by Ranks on the left Wing. Form the Squadron on the Right. File off by three Files on the left Wing from the Squadron. Some, indeed, are for Filing off with whole Ranks; but the most Experienced in this matter have found it most convenient to be done by Files, because three Files make a Squadron, which a Rank do's not.

The next material thing to be considered is, The Doublings, being useful for the strengthening any

any part of the Battel, as it shall be seen necessary, or required, consisting in these following Heads. As to the General.

1. Doublings of Length. } Front and Rear.
2. Doublings of Depth. } Both Flanks.

But if you come to particulars, there are six sorts of Doublings; as thus,

First, Of Ranks; that is, when every Rank doubles into the odd, and if it happen that the odd Ranks are to Double, then let the Body face to the Rear, and you need not expect any other Words of Command.

2. Half Files.
 3. Bringers up.
- } Here they are said to be doubted, at what time they double their Rear into the Front.

4. In doubling the Rear, it must be done when the half Files double to the Rear.

5. Observe, that the doubling of half Ranks must be by the one Rank doubling the other, and every doubling is done by the passing thro' by Counter-marches entire, or divisional doublings: And observe in the doubling of Ranks, that they are reduced by the doubling of Files, further noting, that the doubling Files to any hand, by the doubling of Ranks to any hand, they are reduced.

In every Motion 'tis to be observed, that those who are to double, must, before they quit their places, Advance and Poise their Arms;

Arms; and the Commands being performed, they are to Conform to the same posture as they observe those to be in, to whom they double, whatsoever the Posture be.

If you go upon entire Doublings, they are to be performed by Order, as well in Rank as File, and in Divisional Doublings, must be at open Order, as well in Rank, as File, observing your right-hand Man in all Motions.

If your purpose be to strengthen a Battalion in the Front, Rear, or Flanks, by Doublings, it may be done as to the Front and Rear by entire Doublings, entire Wheelings, Divisional Doublings, and Divisional Wheelings; and in the Flanks by Files, half Ranks, and Divisional Wheelings.

In this case, the Words of Command are, **Ranks to the Right, Double, March. Ranks, as you were, March. Ranks, to the Left, Double, March. Ranks, as you were, March.** Observing in these Matters a general Rule, That upon any doubling of Ranks, or half Files, notwithstanding their turning to the contrary hand, they double on from the ground they Double to. They (when they come to their own ground) must ever turn to the hand they double; and thereby they stand directly after their Leaders.

If you are for Doubling of Files, that may be done in the same manner, holding in the same Order with the Reduction of doubled Ranks; and for the doubling Front half Files, by the Rear half Files; the Words of Command are, **Half Files, to the right hand.**

Double

Double pour front. March. Rear half Files as you were. March. Rear half Files, to the left Hand, Double pour front. March. Rear half Files, as you were. March.

And again, if you would Reduce, let the Rear half File stand without facing, till they are passed by the Front half Files; then let them fall after their proper Leaders; but if by the Rear you intend to double the Front half Files, the Rear half Files are to March exceeding slow, the Body standing still, and in the half Files be curious to observe well the right-hand Men; and in doubling of Rear half Files by the Front half Files with the Reduction: The words of Command are, **Front half Files, to the right-about, double pour Rear. Half Files March.**

In this case, the three Front Ranks, or Front half Files must turn to the right-about, passing on the right Hand of the Rear half Files, doubling unto them, and then to face to the Left-about to their Leader, without expecting the Word of Command; and in case of Command, *viz.* Reduction, **Front half Files as you were, March**; the Front half Files are to March slowly, three Foot distance from the right-hand Man, directing more left-ward, which reduces them to their former Ground.

If you are desirous to exercise in Doublings, observe the following Method.

Having drawn up the Battalion, and if it consist of Musketers, the Commander in Chief must give the Word of Command, *viz.* **Musketeers, Shoulder your Muskets**; but if the

the Battalion be composed of single Pikes, those that are to March must be Commanded, *viz.* Ranks that are to double to the Right, Advance your Pikes. Ranks that are to double to the Left, Advance your Pikes; & this ought to be taken by the Pikes as a general Rule, when they form a Battalion of themselves, always advancing when they are to double, fixing their Pikes upon the Ground, when they make a stand; but different from this in some kind, when the Battalion is composed of Musketiers only for the Command, than is what is required in the ordering of Musketiers alone, and Pikes alone.

To the Right, double your Ranks in front March.

Here, if you would make your Doublings exactly true, then the Soldiers upon their parting from their Left Feet, must come and place themselves in the middle of the distances of the Ranks they double; and if the Battalion consist of six Ranks in depth when they are to double by Ranks, either in Front or Rear, then must it lose one Rank of the depth of Ground, and the distances of the Ranks by that means shall become double to those with whom they were before doubled; this being well observ'd, and you intend to reduce the Battalion, proceeding thus, Ranks as you were. Then to double to the Left, say,

To the Left, double your Ranks.

If you intend to double your Ranks by half Files, the Commands must be, *viz.* To the Right by half Files, Double your Ranks
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in Front. March. And the same Words are required to double the left by half Files, either in the Wings, or in the Rear; then to reduce the Battalion, the Command is only, Ranks, as you were.

To double the Ranks in Front upon the Wings, so order it, that from the half File to the close File, the Battalion cut, or divide it self in the half Ranks; then the half Ranks on the left hand must face to the Left, and double upon the Wings of those two that have not changed their Ground.

The manner of drawing up a Battalion, and the Officers taking their Stations of Parade, when they are to receive the King, or Genreal, &c.

HERE the Battalion, or Regiment, being drawn up in Exercise, the Ranks at twelve Feet distance, and the Files at three, the Musketers sloping, and carrying their Arms well, the Pikes must order their Pikes in a close posture to their Bodies, holding them near to their Heads, the butt ends to the Latches of their Shoes, the Serjeants taking two, or one, on the right and left of every Rank at an equal distance, as the Soldiers are at in the File; but those on the Rear must place themselves at three paces from the last Rank of Soldiers, well ordering their Halberts, and having their Hats off, the Drums are

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are to stand on the right, and the left, even with the Front Rank of the Soldiers, and at the same distance one from the other. The *Haut-boys*, are to be on the right of the Drums on the one side, and the Drums on the right on the other.

The Officers Posts, or Places.

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Lieutenants to be divided equally at the head of the right and left Wings of Shot; the Ensigns to be at the head of the Pikes in an equal Line, each two paces distant from the Body; the Captains to be divided on each Wing, advanced two paces before the Lieutenants, the Commander in Chief excepted, none are to be before the Ensigns, and he to be two paces advanced beyond the Captains, unless it be when a Regiment makes but one Battalion, and the Presence of the Collonel, and Lieutenant-Collonel be had, then the latter is to take his Post on the left Hand of the former. The Major, who must be on Horse-back, is to place himself in a direct Line before the Serjeants on the right Angle, somewhat more advanced before the Line of the Captains, and the Aid-Major being likewise Mounted in the left Angle after the same manner.

If the King be to be received, then Pikes must be Advanced, and Muskets Shouldered, but to all others, the Pikes are to be Ordered.

If a Company of Granadiers belong to the Regiment, it must be drawn up on the right
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of the Battalion, at three deep, about three paces being left between their Drums and those of the Battalion.

The Order and Manner of Salute.

As soon as it is observed the King approaches, the Drums must Beat a March, and the Officers are to Salute in their Order, as he passes by, keeping the Spear of their Pikes exactly with the proper Front, and not by any means turning them cross ways.

The Salute made, they, without making a Leg, or Bowing, are to pull off their Hats, keeping them off with their Bodies upright, till the Persons to be Saluted, are passed by.

The manner of the Ensign's Saluting is with their Colours at one Motion, bringing them near the Ground directly before them, raising them altogether at one Motion; upon which they pull off their Hats as the former. The Serjeants are to stand with their Hats off, and their Halberts Ordered, facing the same way with the Battalion; and here it is to be noted, That if the Person to be Saluted goes round the Battalion, it must face as he moves, without altering the Posts.

This must be observed upon the private review of a Battalion; but if it so happen, that it be to be done in the Field, and the Army drawn up, each Battalion must Salute with Pikes and Muskets Charged. The Musketers upon the approach to be Shouldered, and the
Pikes

three Pikes Advanced, when the Commander in
those Chief proceeds to give the Word, viz.

Recover your Arms.

Upon this bring your Pikes and Muskets
directly before you, the butt ends of your
Pikes in the Palms of your Hands, and the right
Heel brought to the left Instep, and when the
Drum first strikes the March, you must Charge
with Pikes and Muskets at one Motion, and
keep your Arms in that posture, till the per-
son to be Saluted is passed by; upon which these
words of Command ensue.

Recover your Arms.

Poise your Muskets.

Shoulder your Muskets.

At which time the Pikes are to be brought
to the Advance; but in case of Marching, the
Salute is somewhat different.

Of Marching, and the Salute, &c.

In Marching a Battalion, be sure in the first
place, to see the Files close to the right or
left in their Marching Order, which is so much
distant, as they can conveniently have the use
of their Arms, without incumbring each other,
and greater Bodies in this case require more
distance than the lesser, as half a Foot and
more from the right hand Man, and so in Or-
der to the rest; when the Pikes being Advan-
ced, and Muskets Shoulder'd, the words of Com-
mand are,

Files close to the Right, (or the Left.)

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To

To your close Order.

March.

Then each Man is to turn to the hand named, and consequently closes to the distance and hand mentioned; and when this is performed, the next word of Command is,

To your Leader.

Hereupon the Serjeants are to see the Rank kept at their Twelve large Feet distance, and being thus disposed, if it march in a Body, the Lieutenants must be in the Rear, at the same distance they were in the Front from the Soldiers; the Serjeants that were in the Rear taking care of the Flanks, that they keep even and well in Order, and upon the word **March**, they are in Front and Rear, to step with their Left Feet forward all at a time, setting them down together, Marching very slowly, the Pikes Marching equal with the Wings of Shot, not in the least pressing upon each other.

When the Body is Marched as far as is intended, then the Command to them must be, **Halt.**

To the Right about.

The Drums beating a Retreat, the Lieutenants in the same Order and Method, lead them back to their Ground, as was before observed; and there again the word of Command, is **Halt.**

**To the Right about. } viz. To the Left about.
As you were. } about.**

At this word, the Lieutenants must quit the Rear, and come to their station in the Front, whilst the Serjeants in the Flank, who were removed from the Rear, take their places again.

To March in three Divisions; the Method and Order.

IF you are to March a Battalion in three Divisions, the Captains must divide the one half at the Head of the first Division of Shot, and the remaining half in the Rear of the last Division: And again, one half of the Lieutenants in the Rear of the first Division of shot, and the remainder at the Head of the last Division of shot, The Colours Marching at the Head of the Pikes, which are to be Advanced, the Commandent in Chief, Marching two paces before the Rank of Captains, at the Head of the first Division of Shot; the Captains and other Officers exactly keeping the distance they were at first posted at, when the Battalion was drawn up.

The Officers that are appointed in this case to march in the Rear of the Division, are, as they march off, to fall after them; and the Serjeants that were posted in the Rear, are to take care of the Pikes upon their Marching: As for the Drums, they are equally to be divided upon the Division, Marching between the second and third Ranks. The

Granadiers marching about twenty Yards before the Battalion, the Equipage of the Officers of the Front must march somewhat on the left Hand, between the Battalion and Granadiers; the *Hautboys* marching in the middle distance between the Collonel or Commander in Chief, and the Granadiers.

In Marching, the Collonel and all the other Officers must March with their Pikes underhand Comported, not suffering the Spear to descend too much, but keep it steady from swinging, &c. But if they have occasion to Salute, they must as they approach, Shoulder all together, that is, every Rank of Officers as they approach, carrying them level upon their Shoulders, performing the Salute, as if it was the Action but of one Man; nor must the first Rank of Captains Salute, till the Collonel or Commander in Chief has performed it, not standing still, or mending their Pace when they Salute.

The Officers pulling off their Hats, as has been directed in the Standing Salute, or in a Battalion, drawn up for a Review; the Sergeants must march with their Halberts shouldered, the Butt ends uppermost, always upon this occasion marching with their Hats off when those that are to be Saluted pass by, and not to Salute the same Party more than once Standing, and once Marching.

As for the Major and the Aid-Major they have not any fixed Post appointed in Marching; but are attending for Orders on the Collonel or Commander in Chief; and if an Ensign be
absent

absent, a Pike-man, as he is qualified, claims the carrying the Colours before either Serjeant or Corporal.

If it so happen, that a Battalion in the March be attacked, they must immediately thereupon draw up, and face either the same way they March, or Wheeling to the Right or Left, recovering thereby what Advantages they shall see necessary.

*How a Battalion ought to be Ordered if
Attacked.*

IF you are Marching in three Divisions, or a greater Number, then if you be Attacked, and obliged to Wheel to the Right, the first Wing of the Musketers must draw up on the right of the Granadiers, and the Pikes on the right of the right Wing of Musketers, whilst the left Wing of the Musketers takes the right Hand of the Pikes, which is done with more Ease and Speed than by Marching round the Rear.

As soon as you prepare for Defence, or the Chief Commander is for drawing up the Battalion in the same Method, he gives the words of Command, that the Rear, half Files of Musketers do double their Front to the Left in Marching, and upon the first Command to the Musketers, to make ready, viz. (to be Cock'd and Guarded) the Pike-men, without expecting Command, are to Port their

Pikes,

Pikes, and the Drums to beat a Preparative, whereby the Rear must take notice to draw up, and at the same time the Ensigns must give their Colour to the right-hand Man of the respective Companies, who immediately must retire with them to the Centre of the Pikes, and the Ensigns taking the Soldiers Pikes, must March at the Head of the Pikes: As for the Drums that before marched between the Ranks of the Musketers, as likewise those of the Granadiers, they are to be joined with those Drums that March with the Pikes, and the *Hautboys* must joyn the Colours.

When the Drums beat the Preparative, the first Division excepted, every Division is to march up with as much speed as may be, not breaking or falling into any Disorder, the first Division marching slower, and not altering its former pace.

The Ranks in Marching must observe to close forward at Six Foot, which must be well directed by the Serjeants, who are to look to the Order.

The Granadiers are to be divided into three parts, no part exceeding each other, and one of these parts must be with the Captain at the Head of the Pikes, about Eight Paces from the first Rank, and the other two parts on the Right and Left of the Battalion, when those at the Head of the Pikes are to receive the word of Command, *Present and Fire*, and the first Rank of Musketers are commanded to *Kneel*; and when they have

ative, have fired, they must make ready their Granada's, and after the two other Ranks Fire, must then are they to deliver their Granada's, and place their Daggers in the Muzzles of their Fire-Locks, and those Granadiers placed on the right and left of the Battalion, are to make their Fire as the Musketers Fire, *viz.* The two last Ranks must fire with the Musketers, and when they have so done, they must fix their Daggers in the Muzzles of their Fire-Locks; then the Front of Granadiers must have their Granada's ready, and likewise when the first Rank of Musketers Kneel they must do the same, and when the two last Ranks have fired, they must Stand up, and upon the firing of the first Rank of Granadiers, they must deliver their Granada's, and fix their Daggers in the Muzzles of their Fire-Locks, as the others.

Observe, that when the adverse Battalion is so near, that the Granada's may fall amongst them, the Officers and Soldiers keeping their equal distance, the Commander in Chief gives the word to *Halt*, at which the Drums must cease, and the Officers, whose Post is at the Front, must Rank at the Head of the Battalion, two paces distant, with their Pikes Ported, and Four of the Serjeants that marched with the Pikes before they drew up, must draw up with them, *viz.* Two with the first Rank, and two with the last, on the Right and Left of each Rank, and the remaining Serjeants to be on the Ranks, and to be assisting to the Officers in the Rear, who are

to be those Officers that took their march in the Rear before they were drawn up, and are to continue in the Rear of the Battalion, to take care of it, all, except the Eldest Captain, who is to come up immediately to the Head of the left Wing of Shot in the Front, and the Sergeants are to be very exact upon the Battalion, drawing up to order the Ranks at six foot distance, and the Files at the same; every Soldier for the better use of his Arms, and the passage of the Enemies Shot, to keep at least a Foot from his right hand Man.

When the Commander in Chief has given the word **Halt**, the next Command is, **Ranks of Musketeers Kneel.**

This is to be done by falling back with the right Legs, without moving the Left, keeping your Muskets so low, that the two other Ranks without incommoding, may fire over them, and upon the giving this Word, the Rank of Officers posted at the Head of the Battalion must fall at once into the Intervals behind the first Rank of Soldiers, taking care at the same time, that the Officers perform their Duties. The Officers having their Pikes in the posture conformable to the Pike-men, and those with the Musketeers must observe to kneel as the Musketeers do.

When the word of Command is given for the first Rank to Kneel, the other two Ranks of Musketeers are to close forward, and in the same manner the five Ranks of Pike-men as they can with conveniency, and use their Arms without any word of Command.

Two

Two last Ranks Present.

This must ever be observed to be done breast high, the first of the two stooping without any word of Command, and at the same word the Pikes are to Charge, and continue Charged.

Fire.

Recover your Arms.

At which words of Command the foremost or Front Rank, must stand up, without expecting further Command, at the same time their Muskets being recovered strait before them, Cock'd and Guarded.

Front Present.

Fire.

Recover your Arms.

Club your Muskets.

Fall on.

This must be done with a Shout or Huzza, the Pikes continuing Charged, and the Drums beating another Preparative.

Halt.

Upon this word given, the Drums must be silent; and now in case of a Reduction, it must be done by this Order of Command, &c.

Boile your Muskets.

Hereupon the Pikes must be recovered from the Charge; the Granadiers must take their Posts, as before they were divided.

Shoulder your Muskets.

The Pike-men at this word of Command, must bring their Pikes to their Thighs, to their Advance; the Rank of Officers Advancing together

gether before the Head of the Battalion two paces.

Ranks open backward, at twelve Foot distance.

March.

Rear half Files of Musketers that doubled to the Right-about, as you were.

March.

Officers, Colours, Drums, and Hautboys, to your proper Posts.

March.

If it so happen that a Battalion be more than once to Fire in Exercise, then before you fall on, instead of Clubbing your Muskets, when the first Fireing is over, the Musk. tiers as they March must make ready, and the Pike-men Port, noting by the way, that every right-hand Man (being a Pike-man) of each Company must ever march with the Ensign's Pike.

The Drums must beat the Preparative, at what time the first Division draws up, either in Battalion, or single Company, being the most ready way to give notice to the Rear to draw up likewise, when the Preparative is beat, the Pikes Shouldered are to Advance, except the Command be given to the Musketers to recover their Arms, and then the Pikes are to Port, but no otherways in drawing up, but at the Advance; neither must the Ranks close forward, or mend their pace in Marching, but to draw up as at other times, except the Command be given to the Musketers, to recover their Arms,

or

or make Ready, being the same posture, then they are ever to march as has been before directed.

In Marching by Subdivision, what is to be observed.

IF a long March be designed for a Battalion by Subdivision, the Files must be counted and ordered according to the Wideness or Narrowness of the Ways they are to March, posting one half of the Captains at the Head of the first Subdivision of Shot, and the other in the Rear of the last, dividing the Lieutenants to every Subdivision of Shot for their better care of them, the Colours being likewise divided to march at the Head of every Subdivision of Pikes, and the Serjeants are always to march on the Flanks, never leading or bringing up a Division, except Commanded, and those Serjeants that are placed at the Rear of a Battalion, when drawn up, are ever to take care of the Pikes in Marching; and in this way of Marching they are to March shouldering, in Files, but not in such Order as to jostle, or incroach upon one another; and although at sometimes it may fall out that more Men may be in one Rank than in another, yet the Spaces must not be Left, but they are to file in Marching shoulder to shoulder, the Captains and Officers ever to
March

March with their Pikes under-hand, unless it be when they pass by a General Officer or advance before a Guard, which they are to Relieve, or off the Parade, in which case they are to Shoulder.

Defiles, *their Management.*

A *Defile*, properly so termed, is a Dirty Lane, or difficult place of Passage; if it happen withal to be narrow, and to make good the passage you would draw up as soon as you have passed it, in order, then make the Ranks Files, and if the right-hand Man is to File first, and the rest of his Rank must follow him, then are they to Rank again as they were, which proves more advantageous than Files filing; for this Reason, *viz.* because it presently makes a Front to the Enemy; and in case of great Ranks, they may File two a-Breast, beginning with the outermost File-Leaders, and if the space will admit, that is in large *Defiles*, the Commander may make a Front by drawing off, as appears best to his Discretion.

Wheeling,

Wheeling, *what it is, and how to be ob-
served, &c.*

Wheeling is a Motion in Military Exercise, which, by turning, brings the Head of a Battalion to the Flank ground, which is necessary, if the Wing of a Battalion be attacked, or when it is advantageous to attack the Enemy in the Flank; and on many other occasions, as the advantage, or disadvantage of War offers. But to the purpose.

The Battalion drawn up, the Officer in Chief gives the Word of Command, *March*; and when the Battalion Wheels upon the first Head of the right-hand File, then it Wheels to the Right, and when it do's the like upon the Left, it Wheels to the Left.

A Quarter Wheeling is termed the first Wheeling, as it happens when they take a Compass to possess their own, or the Ground left by another Battalion; and in all Wheelings such Compasses of Ground must be taken as that they leave no Gap, nor press each other out; and to avoid this, every Man must take notice of his distance at File, the Word of Command being given to Wheel, and then if you are to Wheel to the Right, be sure to keep that distance from your right-hand Man, the Ranks taking great notice of their Leaders, closing very quick to the Left in the Rear, observing to do the like to the Right, if the Battalion Wheel to the Left.

The

*The manner of Wheeling a Battalion, or Body,
when they March in Division.*

The Battalion being upon the March, and commanded to Wheel, when it is so ordered to the Right, the right-hand Man keeps his Ground, only turning upon his Heel, whilst the left-hand Man moves about with a swifter pace, till he makes an even Line with the right-hand Man, and the Word be given to Stand, the second Rank observing, not to begin to Wheel till they have taken the ground of the first; by which means every Rank is to March successively forward up to their Leader's Ground before they attempt to Wheel; for therein lies the Dexterity of this way of Wheeling.

The Soldiers, before they offer to Wheel, must take notice of that Hand in Marching, to which they are to Wheel, for as the right-hand Man is to be noted upon the March, when they Wheel to the Left, so on the contrary the left-hand Men, when they are to Wheel to the Left. If the Service requires Wheeling in single Ranks, observe:

The manner of Wheeling in single Ranks.

When it is requisite for the Service, to wheel in single Ranks, for lining, or guarding. The Words of Command are, *viz.*

Ranks to the Right, or if to the Left, then Ranks to the left-hand Wheel. March.

The

The right, or left-hand Man, to which the
Body Wheeling is made, being to keep his ground;
 only turning till the Line comes direct, the
 rest being all to Wheel together in one Rank,
 and at the Word of Command, *March*, the
, and Colours must Wheel in before the Ranks, the
dered Drums taking their places on the right and
s his left of the Ranks, as must the Serjeants, obser-
whilst ving, that they be closed to the right or left,
wifter without leaving any unseemly Space ; and to
h the reduce them again, observe the following Order.

The manner of Reduction.

In doing this, the left-hand Man of each
Lea- Rank must stand, and keeping his Ground, on-
heel ; ly turn about to the Left, and at the Word,
y of *March*, the rest that compose the Rank must
heel, Wheel to their places.
g, to

*The manner of Wheeling backwards, by Half
 Ranks.*

Here observe, there must as near as pos-
heel sible, be an equal Number of Men in every
The Rank, the right and left-hand Man of each
hen standing firm on his Ground, and turn only
The to the hand named ; the Words of Command
 being, *viz.*

*By half Ranks wheel to the right and
 left backwards. March.*

Whereupon the Battalion opens, the half
 Ranks separating and falling back to the right
 and left-hand Men, which leaves an Interval,
 and

and forms two Ranks opposite to each other, the Officers and Colours dividing in the same manner, taking their Posts, and Ranging before the Soldiers to make a Guard, the Sergeants and Drums placing themselves equally on the right and left: This being observed, the manner of Reduction is by these Words of Command, *viz.*

By half Ranks to the right and left inward. Form your Ranks as you were. March.

Here the half Ranks are to Wheel from the right, and the left, and close the Interval, by which means they become whole Ranks; for having wheeled inward at the word **March** they are no more half Ranks, but whole Ranks in a Marching Order. In case of Closings and Openings there are divers Words of Command required, *viz.*

Ranks, close forward to Order, *viz.* (three foot) March.

Ranks, close forward to close Order, *viz.* (a foot and half) March.

Ranks, open backward to Order, *viz.* (three foot) March.

Ranks, open backward to open Order, *viz.* (six foot) March.

Ranks, open backward to a doubling distance, *viz.* (twelve foot) March.

In this manner of proceeding, to open backward, the Ranks must fall backward in Order, without changing the Aspect, having ever regard to their Leaders and right-hand Men.

The further Words of Command are, *viz.*

Files, close to the Right. March.

Files, close to the Left. March.

Files, close to the Centre. March.

Files, open to the Right. March.

Files, open to the Left. March.

Files, open to the Centre. March.

By the Files opening to the Centre, is meant their facing from the Centre, and if there happen to be an odd File, that remains, and is properly termed the Centre File.

When Files are to open to the Right, or to the left, they must keep their Station without changing in any manner, till the Word **March** be uttered; whereupon they are to face to the Hand named, taking their distances commanded, each from his Leader. In all Openings, as have been said, the contrary Man must be observed; if the Command be to open to the right, the second File from the right must, by short steps, first take its distance, suffering the Leader to pass as far as it is commanded, before you move, the rest of the Files in their turn and order, observing to do the same; as for the left-hand File, it is not to move, in all Openings they are to move directly forward with a slow pace.

*Thus the young Souldier may his Duty read,
But now to greater Things we must proceed;
The Ratling Drum and Trumpet calls us on,
A Soldier's Work you know is seldom done,
But ever Travels with the glorious Sun.* }

*A farther Consideration of Doublings,
Relating to Foot, &c. and their Redu-
ction.*

1. **R**anks, to the Right, double, March.
2. Ranks, as you were, March.
3. Ranks, to the Left double, March.
4. Ranks, as you were, March.

In case of Doubling the Ranks, those that are to do so, must observe their right-hand Men, and move as they move, beginning to move with the Foot, next the hand then named, and so to come into Order; this doubling the even Ranks, must be observed to double into the odd; and when the odd Ranks are to double, you must face the Body to the Rear, and the like Words of Command will perform it, or you may further proceed, *viz.*

Odd Ranks that stand, to the Right about, Double the even Ranks.

The Reduction of Ranks, &c.

Those Ranks that double, must face first to the contrary hand, and then with the contrary Foot bring themselves to the former Ground, but not to move in the least, till the word **March** be given; and this is held upon all doublings of Ranks, and half Ranks, notwithstanding the contrary Hand is to be turned to, they must double on to the Ground they double to, yet coming to their proper

proper Ground, they there must turn to the hand they doubled, and thereby they are brought directly to their Leaders; and in the like manner Files are doubled, remaining much the same with the Reduction of doubled Ranks.

The manner of doubling Front half Files, by half Files of the Rear.

The Words of Command in this case are,
Half files, to the Right-hand, Double your Front, March.

Rear half files, as you were. March.

Rear half files, to the Left-hand, Double your Front. March.

Rear half files, as you were. March.

If this happen upon the March, the Rear half Files must move into the Front by a new swift motion, the Front half Files at the same time continuing there, each observing the right-hand Man.

In case of Reduction, the Rear half Files must not face about, but stand still till the Front half Files are passed, and then fall in, and follow the proper Leaders, but if the occasion require the Front half Files to be doubled by the Rear, the Rear half Files must March softly, observing their right-hand Men, so that all the Ranks may double at one time.

Observe in Reducement, as it is in the doubling of single Ranks, that no Man must move till the word of Command, **March**, be given,

upon which they turn all together upon the contrary hand they doubled on, and when they come up to their own Ground, they must turn to the hand they doubled to.

Rear half Files doubled by the Front half Files.

Here the Words of Command are, *viz.*

Front half Files, to the Right-about, double your Rear half Files.

This Word of Command given, the three Front Ranks, or three half Files must turn to the Right-about, and going on the right-hand of their Followers, or the Rear half Files, they must double into them, and when they have doubled, face to the Left-about to their Leaders, without expecting any Word of Command.

The manner of Reduction.

The Words of Command are.

Front half Files, as you were. March.

Whereupon the half Files must March slowly, keeping at three Foot from the right-hand Men, by which means they incline to the Left, and are brought directly upon their former Ground; and it is only doing thus, and observing the contrary hand in doubling to the Left.

Now it remains that somewhat more particularly than has been said of the several manners of Fireings be laid down, &c.

The

The manner of Firing to the Front.

When the Soldiers are to Fire, and keep their Ground, 'tis expedient that the Body be made close as well in Rank as File, as will stand with the use of Arms, and hereupon Command must be given, *viz.*

Musketiers make all ready.

Then they are to have have their Arms strait before them, ready Cock'd and Guarded, and the Pikes being Ported, they must Charge when the Musketiers Present, and then ensue the further Words of Command, *viz.*

The five first Ranks kneel.

The Rear Ranks Present.

Fire.

The fifth Rank stand up.

Present.

Fire.

The fourth Rank stand up.

Present.

Fire.

In this manner the rest must be Commanded, and when they have fired, they are to Charge again, and make them in readiness, to expect the next Word of Command; and this Order of Firing may be performed by two or three Ranks at a time, the first Kneeling, the second Stooping, and the third standing.

In Freing to gain Ground, observe this Order: The Battalion Marching, he that is to give the Word of Command, proceeds thus:

**First Ranks of Musketers make ready.
Halt.**

Upon this the entire Battalion must Halt, then Command the Musketers of the first Rank.

**To Present.
Fire.**

And as soon as they have fired, they must recover their Arms, not expecting any Word of Command, and with a swift pace file off to the Right and Left into the Rear, observing ever when the first Rank Presents, the next Rank is to make ready, and as the first files off, the next must make good the Front, the Battalion Marching, and every Rank to Fire in this Order, and at the presenting of every Rank, the Pikes without Command.

The manner of Firing to the Front, Retreating.

If the Enemy press your Battalion in Front, and you cannot make good your Ground, you may, to prevent their pressing on, Fire, Retreating in single Ranks in the same manner, as when you are to gain Ground, except, (after the firing of every Rank and their having filed off to the right and left into the Rear, (instead of the next Rank's advancing to make good the Front of the Pikes, the Pikes must make their Retreat to the Musketers, who must keep their Ground, till the Pikes make an even Front equal with them, and the rest of the Ranks in their Firing and Retreating are to observe this Method.

The

The manner of Firing to the Flank.

If a Battalion be upon the March, and is constrained by reason of the pressing of the Enemy, to Fire to both Flanks it is to be thus performed,

Keep the Ranks at six Foot distance, and the Intervals of that distance must be carefully observed between the Muskets and Pikes in their Divisions; and this must be done by causing the Musketers to encline to the right and left, upon every Firing to the Flanks.

The Words of Command are, *viz.*

To the right and left hand, files of Musketers make ready.

Which they must do, and keep along with the Body, not facing to the Flanks, till they are commanded to Present; and when they have Fired, they are to face to the Rear; being thereupon led a-thwart very quick by the Serjeants, and so up between their own Divisions and the Pikes; and as soon as ever the next Flank Files Present, those that succeed, or support them, are to make ready, without expecting the Word of Command, as in many other cases have been instanced, keeping along with the Body, till they are bid Present; and this Order must be observed, till all the Files have Fired, each Man upon Firing, falling back with his right Leg, in case of Firing to the Rear, which many times stands in stead, especially upon being Charged by a

greater number, or upon a Retreat; you must observe the following Order.

The manner of Firing in the Rear

The Words of Command directing this way of Firing, are, First,

The Rear Ranks of Musketers make Ready.

By which is understood Cocking and Guarding.

Then Present.

Fire.

Upon these Words, the Soldiers must turn to the Right-about, casting their Left Legs backward, then Present and Fire; which done, they must recover their Arms without any Word of Command, Marching up into the Front, and there taking their Stations; and note, that as soon as the first Rank is bid Present, the next is to make Ready without Command, but must not face to the Rear till Commanded to Present; and when the first Rank is bid to Present, the Pikes must March till such time as the Rear of the Pikes are even with the next Rank of Musketers that have made Ready, by which means room will be left in the Front, for that Rank that Fires to bring themselves up even with first Rank of Pikes, every Rank being to do the like by the same Order.

The manner of Firing the Street way.

THis Fireing is generally made to defend against Horse that attempt to Charge in the Front, when the Pikes are few; then the Rear half Files of Pikes must double the Front, upon this Command, *viz.* Rear half Files of Pikes to the Right. Double your Front.

March.

Musketiers, to the Right about, March.

The Musketiers being clear of the Pikes, the following Commands are to be given.

Musketiers, face to the right and left inwards.

March.

Upon this Command, they are to join the Centre of the Pikes, and the Commandent proceeds, *viz.*

To your Leader.

Hereupon the care of the Officers must be to observe the Shot, and the Pikes equally Wing, for the former keeping no more distance from the latter than to give space for the Ensigns, Drums and Hautboys to come between; then the Captains are to take place in the first Ranks of the Pikes, and the Lieutenant with the Musketiers; and according as the Body is bigger or lesser, one or more of the Sergeants must see the two first Ranks of Musketiers to face to the right or left; and when the Command is given by the Chief Commandent, *viz.* Port your Pikes, the Musketiers of the two first

first Ranks must make Ready, and at the Word, **March**, the two first Ranks are to be brought up by the Serjeants to the right or left, according as it is ordered, who by two and two, filing up, they thwart under the Pikes, and there they are to face to the proper Front, without expecting any Word of Command, and to make two Ranks; and that some Fire may be ever reserved, 'tis most expedient to Fire but one Rank at a time, the second being Cock'd and Guarded, to stand either of them as near to the Pikes as the Management of their Arms will permit; then the Word is to be given, *viz.*

First Ranks of Musketers kneel.

Upon which they must fall back with their right Legs, keeping their left fixed, their Arms upright before them, their left hands even with their Mouths; then the further Word of Command is given, *viz.*

Present.

Fire.

Immediately upon Firing, they are to recover their Arms without expecting the Word of Command, and so file off on the contrary hand they advanced on, with as much speed as they can, the Serjeants leading them close by the Body into the Rear, placing them there, in their proper Files.

The Musketers being commanded to Present, the Pikes must Port very low, without any other Word, and in the same Order to raise their Pikes as soon as they have Fired to their proper height, the sub-altern Officers
always

always minding, that the next Rank of Musketers be ready at the Angle, to make their March under the Pikes, instead of the second Rank, which is to take the place of the first, when the first Rank has Fired.

In this manner of Firing, if the Street to be defended be very broad, then a space or Interval must be made over and above the passages on the flanks, sufficient for two Men a-breast, which will prevent the Horse from making any advantageous Attacks.

To reduce this Order, the Words of Command are, *viz.* Musketers face to the right and left outward, March; and as soon as they are quit, the farther Command is given, *viz.* Musketers, to your proper front, March.

This they must observe to do, till such time as they are even with the first Rank of Pikes; and then the Officers, Drums, Colours and Hautboys must take their proper Posts.

Of the hollow Square, and the manner of forming it by Words of Command.

IF you proceed to this, the Battalion must be drawn up in Ranks, at Twelve Foot distance, the Files being at Three, then the Muskets shouldered, and the Pikes advanced the Words of Command ensue, *viz.*

Colours, Drums, and Hautboys, to the Centre of the Pikes, March.

Ranks close forward to Order, March.

Three

Three outward Files of Pikes on the Right and Left, double your Files to the Right and Left inwards, March.

Half Files of Musketers to the left hand double your Front, March.

Files close all to the Right, to your close Order, March.

To your Leader. Pikes face Square. Pikes close forward to the Front. Left Wing of Musketers to the Right about. Both Wings of Musketers March. Halt. Musketers face to the Left, March. Halt. Face to your proper Front. All Officers and Serjeants take your Posts. March. Grenadiers take your Posts in the Angles March. Face Square. Musketers make ready.

At this word the Pikes must be Ported very low, when the Musketers present, and the next Word is, First Rank kneel, which must be done in such a manner that the two last Ranks may advantageously Fire over. Then again, The two last Ranks present, Fire. Having fired, the next is, Recover your Arms, upon which the first Rank is to stand up with their Muskets recovered, ready Cock'd and Guarded, whereupon the two Ranks that have fired take the opportunity to Load again, and these Words of Command ensue, viz. Front Ranks present, Fire, which done, the Commandent proceeds, viz. Recover your Arms, and hereupon the Pikemen recover from their Port, then again, To your Leader, March, Halt, Face Square, &c.

These

These being performed, after the same Order they may March, and fire to every Front; noting, that when they are bid to Face to their Leader, it must be to the Commandent in Chief, wherever he takes his Station; but in facing to the proper Front, it must be done to the Front of the Battalion, as it was before it was formed into this manner of Figure.

Words of Command used to reduce this Form.

The Battalion faced to the proper Front, the Commander in Chief proceeds, *viz.*

Granadiers take your Posts on the right of the Battalion, March.

The Right and Left of each Wing of Musketers face to the Right and Left outward, March. Halt.

The three Files of Pikes of the Right and Left that doubled, as you were, March.

Musketers face to the Right, March. Halt.

To your Leader.

Rear half Files of Musketers that doubled, to the Right about, as you were, March.

Ranks open backward to Twelve Foot, March, Colours, Drums, and Hautboys to your former Posts, March.

Files close to the right, to close Order, March. To your Leader.

Things

Things proper to be observed by a Commander, being in an Enemies Country, &c.

HE must be careful to observe the Situation of the Place, and gain as good Intelligence of the Enemy as he can, and if he Command a Troop of Horse, he must be ware of Skirting the side of a Wood, for fear of an Ambush, the strength of Horse consisting in the open Country, as that of the Foot do's in a Wood; for the Enemy is always to be expected to take advantage; it is therefore dangerous for a Troop of Horse, by reason it may be fallen upon before it can get to any secure Post.

An Officer of Foot marching through an inclosed Woody Country, must avoid, if he can, marching in the middle of a Plain, or too near a Wood, by which means if the Enemy approach he will have time to consider what course to take; and if he be attacked by Horse, then ought he to Retreat unto the Wood, Skirmishing to make it good; for if he get into it, the Horse will not attack him there; but if he has to deal with Foot, and observes himself the weakest, he must regain the last Defile, or narrow Post, and drawing up in Battalia, dispute it, till he can better secure himself; and the like is to be observed by the Horse, if overmuch pressed; wherefore it is good for a Commander to take special notice

tice of the places he passes through, sending his Scouts before him to discover the Enemy, and search the Places where Ambushes are suspected; for although it be in a Village, there may be a Party of the Enemy, who will suffer the Scouts to pass by, and conceal themselves till they see an opportunity to set upon the main Body.

When an Officer is arrived where he intends to Encamp, he ought to Draw up his Men, and having set his Guards, he may permit them to take some ease, by alighting from their Horses, if it be Horse, or if Foot, to repose themselves, always facing towards the Town or Place possessed, or suspected to be possessed by the Enemy, having, if possible, a Defile in the Front and Rear, or some other security, to prevent surprise; the Scouts ought to be sent out from one half Hour to another, and when day appears they may venture farther into the Country, and if there be no convenient Town, or Place, the best way, if two or three days March in the Enemies Country, is to lye in a Wood, when it has been well searched, to prevent an Ambush; nor must an Officer suffer his Men to straggle, though he be near a Friendly Town; for it may so fall out that a Party may lye hid, who may fall upon him and rout him, though a lesser Number; for there it is the Enemy most commonly lays Ambuscades, thinking, as it often happens, that by a Confidence of Security they shall find Men Negligent and Disordered.

When

When at any time the Word is required of a Party you meet, it is generally given by the weakest, however it ought not lightly to be credited, nor the Soldiers to Return their Arms till the Officer be assured whether they are Friends or Foes; for many times a Deserter may betray the Word to the Enemy, and he make an advantage of it.

*Considerations in Marching an Army
through an Enemies Country, &c.*

IF the War be carried into the Enemies Country, to Besiege or Relieve any place, whether the Enemy keep the Field or be beaten, Caution ought to be had, especially in Case of the former, nor is it otherwise to be believed but he may Rally again; wherefore it behoves the General to March close, so that the Army may be in a Condition to open its passage; to do which, it ought to be divided into little Bodies, the Cavalry placed upon the Wings in Front and Rear of the Bodies; the Infantry marching in the middle, in a gross Battalion; the Artillery upon one side, Guarded by an Experienced Regiment; and so it happens that an Army never undergoes more difficulty than in an enclosed Country, full of Woods, and Rivers, especially if in an Enemies Territories, where so many difficulties will arise.

Of Marching in a Woody-Country, &c.

THE most probable Advice that can be given in this case, is to send the Pioneers, supported by Horse and Foot, to cut open ways of more easie passage, fill up the Ditches, and lay over Bridges, and to do what else is required, getting by Scouts, and commanded Parties, what Intelligence there can be had; and the General not trusting altogether to others, must be careful to inform himself; and if he meet with a Bridge, or difficult Pass, defended by Curtains, Bastions or any other Heights, the Engineers having well viewed it, it will be convenient to detach a Party, to try whether the River be Fordable, and these being Horse, may carry over each a Foot-man behind them, which will more facilitate the Passage; but if there be an Eminence to defend it, on which Cannon are placed, then he may raise a cross Battery in the most advantageous place, and endeavour to dismount their Cannon; but if the Entry be Fortified with a Bastion, then a Commanded Party of Resolute Men must be detached to Attack it, which must be done suddenly, and with much Vigour; for that daunts the Enemy, when on the other hand, delay encourages them to stand out.

*How a General ought to behave himself when
he meets with Castles and strong Fortresses,
in his March.*

TO overcome these Difficulties, the Engineer and Marshal *de Camp* must look out the most Advantagious Ground to place the Cannon for Battery, and observe the Enemies Cannon how they bear, as also their Sally-Ports, &c. and if he designs to make himself Master of them, he ought to take the most convenient Posts, not only to annoy them, but to prevent their being Succoured, and raise a convenient Battery on the weakest side, or that which by the Approbation of the Engineer lies most open to the Attack, causing the ground to be distributed for an Encampment, as the Quarter-Master General shall think fit, and if the place to be forced prove strong, Earth must be cast up to secure the Approaches from the Cannon or Shot, running Lines Traverse-wise, and Indenting, so that they cannot bear upon those that approach till they come to the Breach made by the Batteries, or undermining any part, where they can Charge their Mine, and throw down the Wall; but if it be not of extraordinary Strength, requiring a formal Siege, then a resolute Party may be Detached from the main Body, supported by others with Scaling-Ladders, Faggots, Spades, Shovels, Pick-Axes, &c. to fill up a Trench or Ditch, whilst the

the Armed Bands attempt to force the Gates with Petards, or the like Engines, or Scale the Walls, ever maintaining and making good their Posts: But in this case the Methods are various, as the Service required offers it self more or less difficult; and therefore we presume not to give exact Rules for what frequently alters.

Of Encampments, and how they are usually Managed.

THough the manner of Encamping frequently is attended with some variation; yet to give the Young Soldiers an insight in these Affairs, will not be unnecessary, as to what has been lately practised.

When an Army, or any great Body is to Encamp, it is usually disposed in Lines, with a Reserve, concluding the Ground at the same time to be convenient for the so receiving them, and if the Lines are but Two, there ought to be Three Hundred paces distance between them at a Yard the Pace, and the Squadrons of Horse have for every one Five and Thirty paces of Ground allowed, and the like space between the one and the other, that so without Disorder, they may March out if there be any occasion to Engage.

As for the Infantry, if they Encamp Six Deep they must have 80 paces at three Foot the pace allowed, or more if the Scituation

of the Ground require it, and between the Squadrons of Horse and Battalions of Foot, the Line must be Forty or Fifty paces distant. The Artillery ought to be placed upon the first Line of Infantry, at such Advantage as may best annoy the Enemy if they come to make any Attack.

The Baggage and Ammunition take their place between the second Line, and the Body of the Reserve on the right Hand, and the Provisions on the Left, or near the Tent of the Commissary General of Provisions.

The Quarter-Master, and Serjeants, as well Horse as Foot, are to pitch their Tents in the Front, or Heads of their Squadrons, or Battalions, and the other Officers' Tents behind the; Principal *Corps du Guard*, and the Parading place claims to be at the Head of the Camp, where the Arms, Ensigns, and Colours are Lodged.

The Posts of the Horse are on the Wings, and the Foot take their Station in the middle, and to every Squadron, consisting of three Troops, and Fifty Men in a Troop, Fifty Paces are allowed, and every Battalion consisting of Sixteen Companies, and Fifty Men in each Company ought to have a Hundred Paces for their Encampment.

As for the Dragoons, they are not Encamped in the Body of the Army, but have their Camp a little separate at the Head, or Wings, which the great Danger seems to threaten, as being the Out-guard for the Army, and each Regiment ought to have a Guard at the Head of

of their Camp, and the Major-General for that day, is to take care to place the great Guard in a convenient place, at a distance from off the Army, towards any expected Danger, which may discover any approach before it come too near, and thereby prevent any Surprize, for Caution is to be used where Danger is not, as well as where it is.

Remarks upon the Encamping of Horse.

IN Encamping a Troop, if it consist of a Hundren Men, they ought to have Seventy Foot in Front allow'd them, and Two Hundred in Depth, Eight Foot in Breadth, and Twelve in Depth must be accounted to two Horsemen, to make their Hutts, or Barques, and the Men and Horses are to be Lodged in two Ranks, the Horses Heads standing towards the Hutts of their Owners; yet between the Hutts and Stables there ought to be an Interval of Eight Foot: The Captain's Tent to be at the Head of the Barques of his Troop, possessing the whole Front, and between the Lodging of the Captain and the Troop, there must be the space of Twenty Foot, a Lane of Ten Foot must be likewise between the Stables, that the Horses may be brought out without incumbring each other, and behind the Troop, the Sutlers ought to place themselves at about Twenty Foot distance; and if any considerable Number of Troops Encamp together, then Twenty

Foot distance is allowed between Troop and Troop, or more, as the commodiousness of the Ground will allow.

The manner of the Encampment of Foot.

A Hundred Paces is commonly allowed for the Encampment of a Battalion of Foot, divided by the Quarter-Master into several Stations, he allowing for each Hut or Lodging, a Square of 7 Foot, 12 Foot to the By-street, and 15 Foot to the great Street, and two Foot distance between Hutt and Hutt, every Company composed of Fifty Men, ought to have Ten Hutts; and the Kitchen for Dressing Provision, ought to be just over against the Hutts at 12 Foot distance, the length of the Kitchen 12 Foot, and the breadth 8, standing about 30 paces from the Captains Tents, and 40 paces between the Tents of the Sub-alternate Officers, and the Captains; the remaining Ground being for the Encamping of the Field-Officers, and the Captains Equipage; the Hutts of the Serjeants are to be at the Head of the Soldiers, opening to the Front; the Suters to Encamp behind the Tents of the Officers at a convenient distance, and about 30 paces are allowed between one Battalion and another; the Collonels, Field-Officers, and Staff-Officers Tents, ought to be in the Centre of the Battalion behind the Captains Tents, and the Pikes to be at 18 Foot distance from the Hutts; the Mus-

Muskets to stand the like distance, and the Drums and Colours to be placed within the hollow of the Pikes.

Things worthy to be observed in Relation to Garrisons.

THose Officers that take place in a Garrison are usually a Governor, a Lieutenant Governor, a Major, Aid-Major, and Captains of the Gates.

The Governor, above others, is obliged in this case, to have a care of the place, and see that there be no wrong done to the Inhabitants; and furthermore, he is to appoint the Guard, Rounds, and Patrolls; to give the Word each Evening; visit the Posts; keep the Officers and Soldiers in such Order, that their Duty be performed: observing, that frequent Parties go abroad to get Intelligence, and thereby prevent surprize; and in the Governor's Absence, the Lieutenant Governor has the same Charge upon him, and Commands with the like Authority.

The Major's Care is to see the Guards Mounted, the Posts and Rounds Assigned, he Orders the Centinels, and goes every Evening to receive the Word from the Governor, giving it about to the Quarter-Master and Sergeants upon the place of Arms, and likewise goes his Rounds; the Major also visits the Corps of Guards, and observes that the Soldiers Arms

are well placed, and in good Order, ordering the necessary Ammunition to be distributed amongst them, he takes care of the Gates, being shut and opened, and is accountable to the Governor of what passes, and gives him a Relation thereof; the Officers that are in Garrison, are to be Obedient to the Governor, or Commander in Chief, and not to stir thence, without Leave in Writing.

The Captains of the Gates are to go Morning and Evening to the Governor's House to receive the Keys, that they may open and shut them; and frequently there is in the Garrison, if it be in a Frontier-Town more especially, a Commissary of the Artillery, or Store-keeper, whose care it is to keep a Reckoning of the Ammunition, and to distribute it according to the Governor's Order, and always one Gunner is to be upon the Guard, at the Batteries. There ought to be likewise a Commissary of the Provisions, and if there be any suspicion of an Enemy, some of the Garrison ought always to be at the Gate, to observe Strangers that go in and out, and the Centinels are to suffer no Carts, or Waggon to stand, or stop upon the Bridge, or under the Gate, and the Innkeepers and others, must give an Account to the Major every Night, what Strangers they Lodge.

As for the exact time of Mounting the Guards it cannot be set down, by reason many vary, being set sooner, and others later, as pleases the Governor; but the frequentest time is about Two in the Afternoon; and whilst

whilst the Drums give them that notice, the Serjeants and Corporals Cast Lots at the Major's House, for the Posts and Rounds, which are writ down in a Register to that intent; then they return to their Companions, who assemble before the Captain's Quarters, and if only detached Men Mount, and not whole Companies, they are led by the Serjeants, the Drums Beating the while, as far as the place of Arms; and when the Detachments are drawn thither, and Formed in a Readiness to Mount the Guard, the Major, or Aid-Major, makes the Captains, even to the Serjeants, draw Lots for their Posts and Rounds; always observing in the weakest Places to Post the strongest Guard with skilful Officers; and not till the Officers have taken their Posts do's the Major Order the Main-Guard, or Guard of Arms to March off: Then he causes those of the Gate and Bastions to do the like, and after them, those that were without, and during the time the Guard is Mounting, those Officers who are to be Relieved put their Men in a posture of Arms, and Draw off from the Guard, posting themselves at the Head of their Soldiers, over against those that are to take their Places, and deliver to them whatever Orders there are, whilst the other Corporals do the like to the Corporals that are come on, and those that are Relieved being Drawn up at the Place of Arms, they are there dismissed, in order to refresh themselves.

Those

Those Officers that have Mounted the Guard, proceed thereupon to Command the Soldiers to set down their Arms, the Pikes at that time being advanced, and the Musketiers shouldered, which is done upon these Words of Command, *viz.*

Recover your Arms.

Ranks file off by Division to the Right and Left. March.

Set down your Arms in good Order.

This done, the Corporals upon the Soldiers setting down their Arms, receive Orders to be careful in all things, that they may be in a Readiness to prevent Danger, or Surprise; and here the Out-Centinels upon the approach of any Stranger, whether Horse or Foot, are to make him stand, and call their Corporal, who is to give notice of it to the Officer, and he to send him to the Governors House, with a Guard, to know his Business, and if the Centinels discover any Troops, though at a great distance, they are to give notice to the Main-Guard, and the Officers are to make the Barriers fast, and draw up the Bridges, suffering none to pass unless an Order be brought from the Governor, by the Major, or Aid-Major.

There is in all, or most Garrisons, a Bell to give notice to those that are Abroad to repair Home a little before the time of the Gates being shut, and then the Keys are fetched from the Governor, and returned again, so that none can pass after the Gates are shut; and then one half of the Guards draw

draw off upon the Rampart, to pass that Night in the Corps of Guard in the Bastions or Curtains, and whilst some Soldiers are ordered by the Corporal to fetch Fire and Candle, the Word is received by the Serjeants at the place of Arms, and then it is carried to the Officers, and dispersed about amongst the Corporals, and after that, none, whether Towns-men or Strangers, are to be upon the Ramparts, without giving an Account of themselves, especially when the *Taptooe* is beaten; and the Major himself, when he goes the Rounds, is received by the Officers of the Guards by their Corporal, attended by two Musketers, giving the Word but once, *viz.* as his Round-Major; but when the Governor or Commander in Chief is received upon the Rounds, he may require the Word as many times as he thinks fit; all other Rounds are obliged to give the Word, and the Corporal receives it with his drawn Sword at the Breast of the Party, and where there is the least thing suspected in a Garrison, the Rounds go frequently, as every quarter of an Hour, that the Ramparts may not be unprovided, and care is taken to know who neglects; and the Rounds are gone with Light; wherefore at the Approach of it, the Centinel must Demand, *Who comes there?* with such an Audible Voice, that it may be heard by the next Guard, and he that Approaches must Answer, or he is in Peril; for the Centinel is not to let him come within his Arms, and the Answer

swer is generally the Round, the Round-Major, or the Governor's Round being to be recieved not by the Centinel, but the Corporal, who is called forth for that purpose, and he is to bid him that has the Word, Advance, which upon coming forth he gives him in his Ear, that it cannot be over-heard: but if the Word be wrong, the Officer of the Guard is to have notice, and the Party to be secured, if he sees occasion; and although in the Night-time the Centinels stand with their Pikes Charged, and Rest their Muskets upon the passing by of the Rounds, yet in the Day-time it is the contrary; for then the Pikes are Ordered, and the Muskets Shouldered. As for the Out-Corps of Guard they pass the Rounds about the covered Ways; but there is no Word required of them, they being only to listen, and give notice if any thing happens.

As for the Patrolls they are made in the Street by a Serjeant, Commanding about six Soldiers of the Main-Guard, and then the Soldiers are to be in their Quarters, and all Publick Houses within the Garrison to shut up their Doors; and at any time when the Alarm is Rung, all the Soldiers are to hasten and present themselves before their Captain's Quarters, in order to his Leading them to their Posts assigned by the Major; and when Day appears the *Reveille* is Beat, and the Keys are fetched again from the Governor, and the Soldiers are commanded off the Ramparts, and drawn into two Ranks with their Muskets Presented, till the Gates are opened

pened, and a Detached Party must be sent out into the Suburbs, adjacent Villages, and narrow Ways, the Bridge being Drawn up after their going out, till they return and bring News the Coast is Clear, thereupon the Bridges are let down; then the Out-Centries being placed, the Keys are carried back to the Governor, and the Soldiers are Commanded to set down their Arms; though where there are any considerable Number of Horse in Garrison, it is their Business to go out upon Parties, and see that the Roads are clear, and every Officer is accountable for his Post, &c. All Governors, or Commanders in Chief should have their Doors Guarded by a Centinel, or a greater Number, according to their Quality in Command. These are the Chief things, and indeed the most Material, and ought to be carefully observed; for it has sometimes appeared, that the safety of a Kingdom has depended upon a strong Fortrefs.

*A Survey of War-like Fortification,
and what is to be observed in Sieges,
&c.*

IF a Town be Defended by Out-works, a Ditch, or Mote Bastions, Flankers, Curtains, or Counter-Mures, and the Garrison be strong, it was the Old Way to Build Forts at advantageous Places, but now they proceed

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ceed in a Siege, by making Trenches, raising Batteries, Mining and gaining Lodgments, which indeed is the quicker way, and the most secure from the Cannon of the Town. The best Fortification is held to be Built Octangular, by which means the force of the Cannon is much abated; for the points of the Angle slant the shot, or if it make a Breach in the hollow Cavity, yet the Angles serve as Flankers on either side, to hinder the Approaches of the Besiegers; so that it has happened when there has been a Breach wide enough to enter, they durst not Attempt it; though indeed the manner of Fortification is various throughout *Europe*, yet the late Models have been indifferently Uniform; and in case a Town be well Fortified, and an Army comes to Besiege it, a serious View must be taken, and the true Nature of the Ground, as well as the Scituation of the Place, enquired into, with the Number of the Garrison, and especially the Courage, Conduct, and Reputation of him that Commands; for as it is in an Army, so it is in a Town, a Valiant Governor, whose Courage is carried on with Prudence, will better Defend it with a small Garrison, than some with a very powerful one, as the Famous City of *London-Derry* has instanced, to the Immortal Honour of her Worthy Governor, Mr. G. Walker, whose Name shall live in spite of all that Malice can devise; *Vienna* likewise, under the Brave *Staremborg*, in the Year 1683. held out till Relieved, against an Army of 120000
Turks,

Turks, being the Flower of the *Ottoman* Empire, and yet these Cities had not any thing considerable to trust to in their Fortifications.

The place being Viewed, and the ground ordered to be broke, the Pioneers once set on work, must make such Places or Lodgings, that those who enter them may be able to succour their Fellows against any Violent Sally of the Besieged, having Issues and Passages for passing and re-passing, as the best advantage shall require.

Having made these Advances, the Artillery must be planted upon Batteries, raised with Earth, and staked with Timber, secured with Gabions or Baskets filled with Earth, or else the Engineers cannot be secured from the Fire of the Town, Wool-packs were formerly used on this occasion, and are not altogether laid aside in the present Management of Sieges, Planting your Batteries something aslant, that the Cannon, if recoiling, may the easilier be brought up again, and always in this there is one Battery bigger than the rest, called the Royal Battery, which generally Fronts the Town Besieged, and is frequently raised as high as the Walls; and these Batteries must labour to Dismount the Cannon of the besieged, as well as batter the Walls, for thereby the Enterprize will be facilitated, but many times the Flankers are Covered in a manner by the Counterscarp, which must thereupon be laid open, or possessed by the Besiegers, to gain a more uninterrupted Access; and if
the

the besieged Parley, and send out to make Terms, Hostilities ought to cease, till those that came out are returned, unless the besiegers will refuse to hearken to any Parley, which is not observed, unless the Matter be carried so far, that the Breaches are laid open, and there is no way for a longer Defence; then instead of gaining Conditions, they are forc'd to surrender on Discretion.

If by Battery, Mining, throwing Bombs, or a perpetual tiring the Enemy, the Town is Assaultable, and a general Storm be intended, it must however be the General's care, as much as in him is, to keep his Intentions from the besieged, by pretending one thing, suddenly change the Order into another; for by it the Enemy is amused, and the Soldiers Spirits are kept up: This Rule was observed by the D. of Lorain, in taking of *Buda*, and proved very successful, as it has done in the like upon other occasions.

The Court-Martial, or Council of War, what is to be considered therein.

IT is necessary the Young Souldier should have some insight in this Affair, to prevent his ignorantly incurring Danger; and in this Case in an Army, or Encampment, the Council of War meet at the Generals Tent or Quarters, and to this are called the Lieutenant-General, the Major-Generals, the Brigadiers, as
likewise

likewise the Collonels, and Commanders of Bories, where it is requisite, or concerns their Regiment.

There are private Court-Martials, or Councils of War, frequently held in Garrisons, and these may be held at the Governors House or in any other convenient place, as the Governor shall appoint; or if it be in Camp, it may be at the Collonel's Tent, and he thereupon is to send notice to the Captains of his Regiment to be present: Those whose business it is to be there, being assembled, the Collonel, or Governor, or whose Right it is to be President, takes place at the upper end of the Table, and the Captains in their Degree, and if there be no Judge-Advocate, or he be absent, the Town-Major, Aid-Major, or Quarter-Master, Discharges that Office, and accordingly take his place at the lower end of the Table.

As for the Lieutenants, Sub-Lieutenants, and Ensigns, they have Priviledge to be there, but only as Spectators, with their Hats off; and if the Matter be of Consequence, after it is opened by the President, the Youngest Officer gives first his Opinion, and so the rest in Order, the President being the last, and being put all in Writing, the Matter happens conform to the plurality of Votes and then is to be signed by the President; if the matter is to be judged of by this Council or Court, then the Party accused is brought before them, and being informed of what he stands accused, the Questions

H

proper

proper to the matter of his Accusations are asked him, and then he has Liberty to reply, as in case of Civil Judicature; when being withdrawn in the Custody of the Marshal, who is the Goaler of this Court, the proof against him is considered, and every one gives his Opinion upon his Conscience, and he Stands or Falls by the plurality of Voices; and being called in, and made acquainted with what has been Determined, the Sentence is pronounced by the President, in the Name of the Court, &c. and if he be Guilty, 'tis the business of the Provost Marshal to see it put in Execution; and if the Punishment be Publick, the Regiment ought to be Drawn up Spectators, as a Warning to them in offending, &c. but a Soldier for the Honour of the Profession, is not to undergo any Infamous Punishment before he be Degraded of his Arms, and his Coat in publick stripp'd off, and to frame this Court, there must be no less than Seven, the President being one; many times for want of a sufficient Number of Superiour Officers, Inferiour Officers are admitted, but not often.

Of divers Figures in Battel-Array, or for Fireing, &c.

THere are various Figures wherein an Army or a Body of Men may be Drawn up, besides these we have named; wherefore for

for the satisfaction of the more Curious, and for the greater Variety, it will be convenient to insert them by way of Prospect, &c.

If you would draw up a cross Battel in the following Figure, you may do it with a private Company, or as many as you please, and to bring them into form: The words of Command are, *viz.*

The first Two Ranks wheel your Front into the midst.

The two last Ranks wheel your Rear into the midst.

These words being given, the next Command must be,

The Rest of the Body Face to the Right and Left, March.

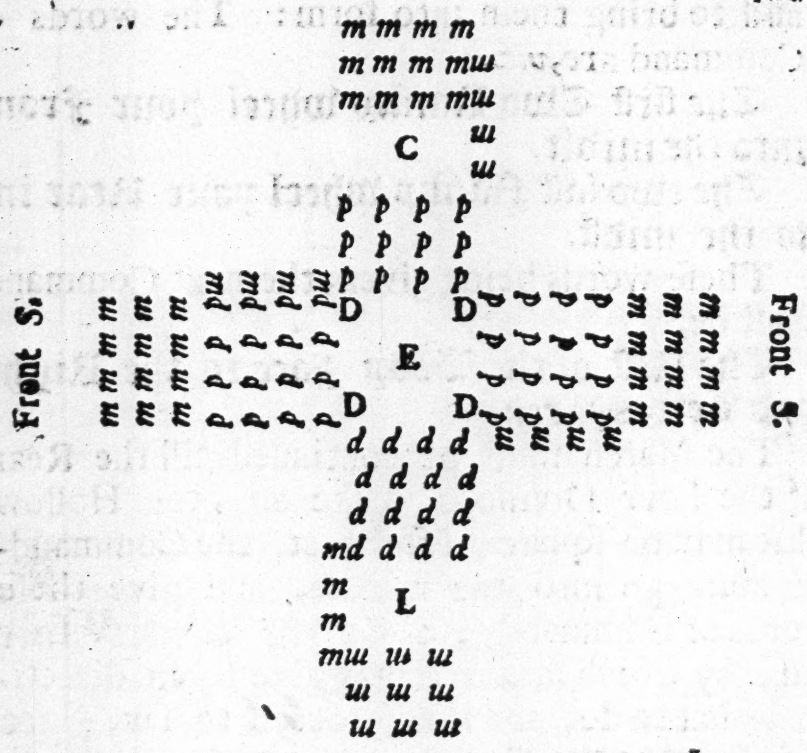
The March must be continued till the Rear of the Four Divisions make an even Hollow that may be square; after that, the Commander must go into the middle, and give these words of Command, *viz.* **To the Centre, face all;** by which means he may give them directions what to do, and then proceed to say, **Face all about to the Right,** which makes the cross Battle of the two Divisions one after the other: Then, **Face all to the proper Front.** So you have all your Musketers in the midst, flanked with Pikes: Then **Musketers Face.**



The

The Cross Battel.

Front S.



Front. S.

Face to the Right and Left outward.
Pikes, Face to the Right and Left in-
ward, Pass through, and interchange
Ground; so is you Body reduced to its first
Front and Order.

If you would Fire upon this Figure, consider, there are two ways in general, and of these, the first is to be noted, when Muskietiers give Fire, thereupon placing themselves in the Rear of their own Division, the next Rank is, after they have Fired, to place themselves in the Rear of Pikes.

To Reduce the Cross Battel.

The Officers in the middle must give the Command, *viz.* Face all to the Centre: And then further proceed to Command those Divisions that were Flankers, *viz.* Close to your Order.

The Four-fronted Battel, called the Plynthium, how to frame it by Command.

TO order this, the Command must be, *viz.* Half Files of Pikes, Face to the Rear. March.

This they must observe till clear of the Ranks of the Muskietiers, and then the Command is,

Half Files of Muskietiers, Face to the Right and Left.

March.

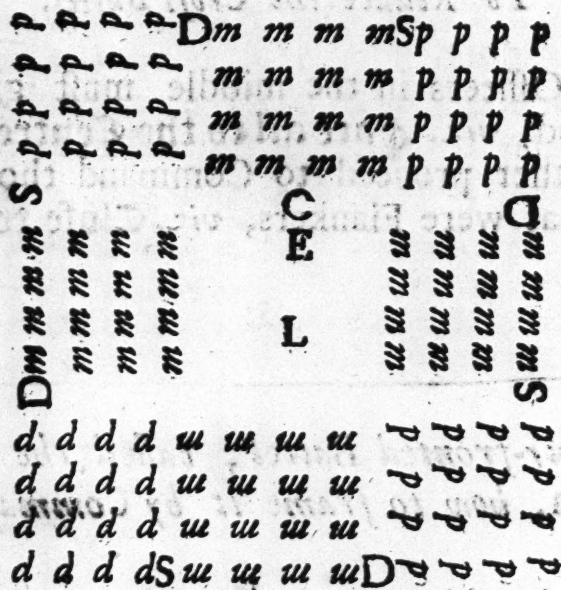
This must be done in Marching between the Divisions of Pikes; then the Word is,

Left half Ranks of the first Division of

Musketiers, Face to the Right, and March between the Rear Division of Pikes.

In this case it is noted, that the Musketers must be in the midst, and the Pikes as Flankers.

The Figure of the Four-fronted Battel, &c.



To fire upon this Figure, the Musketers must do it in Rank, and after Firing, wheel off to the Right, making their passage through the Intervals, and placing themselves in the Rear of their own Division successively, maintaining the same ground; or if you would bring the Musketers to the Angles, and reduce the Pikes to the middle, then must the Musketers take place on the Flanks when you make the Figure.

To

To reduce this Figure.

The whole Body is commanded to Face to the proper Front: And then,

Musketers in the Rear, March up on the Left of the Musketers in the Front.

Musketers in the Flank, Face inward, and close your Division.

These Commands given, cause the Pikes to march up, taking their places directly after their Leaders, and by that means they will be brought into a solid Square: The Commands are,

Musketers, Face to the Right and Left outward.

Pikes, Face inward, March and interchange Ground.

The Hollow-fronted Cross Battle how to Form it.

THE Files in this case being Eight Men in Depth, the Words of Command are thus to be given.

The two first Ranks, wheel your Front into the midst.

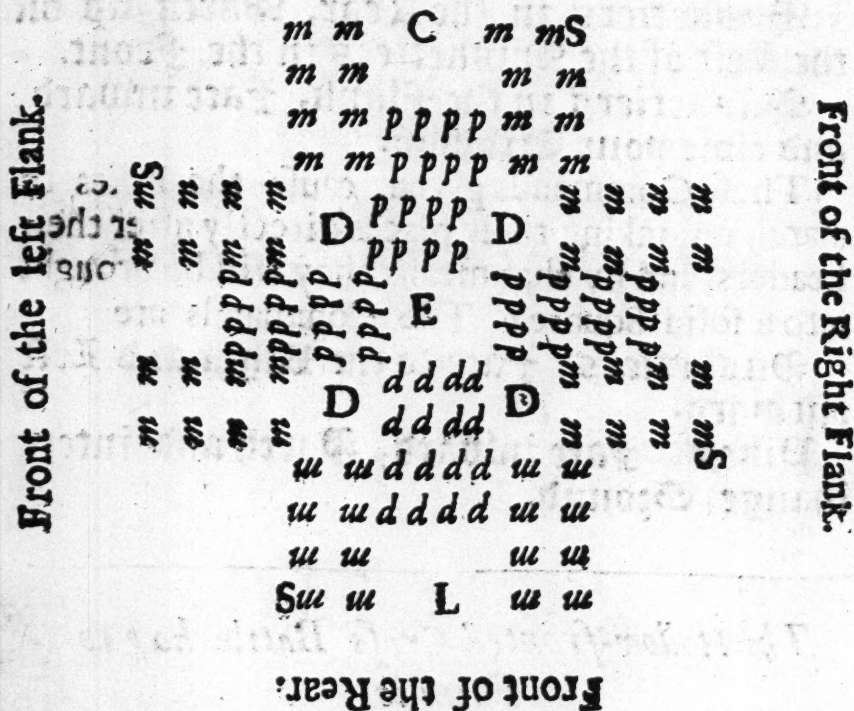
Two last Ranks, wheel your Rear into the midst.

The rest Face to the Right and Left. March.

Here they must move until they have made the Cross; then the Musketers must Flank

the Pikes ; as for example in the following Figure,

Proper Front.



If you come to Fire in this Figure, it may be done every way, as at Front, Rear, and Flanks; the Fire made, they must wheel off by Division, and take their Stations in the Rear of their own Division, moving forward into the Leaders Ground, that the form of the Figure may not be altered; and when the second Fire is given, the Pikes must move leisurely up, Porting as they Advance, till they make an even Front with the Musketiers; the second Fireing made, those that Fired are to Wheel, and place themselves in the Rear of that

that Division of Pikes which they Flanked; which Order all the Ranks must observe upon Firing; and by the Pikes Charging and Re-advancing, the Figure will be preserved, and the Reducement may be observed in what is directed for the Reducement of the Cross Battel.

How to frame the hollow Square with Angles, when required to be guarded with Pikes.

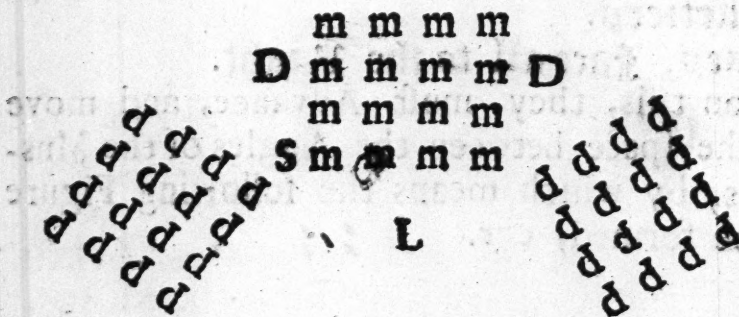
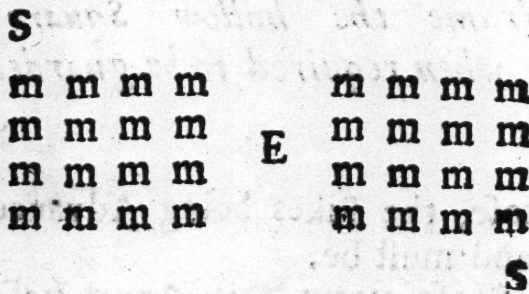
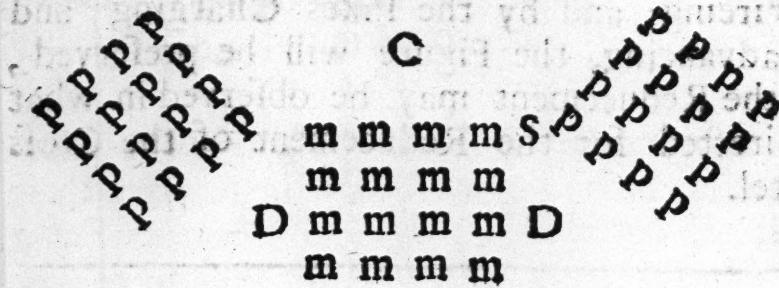
IN this case, the Pikes being Advanced, the Command must be,

Pikes, Close your Divisions before the Musketers.

Pikes, Face all to the Right.

Upon this, they must Advance, and move into the space between the Angles of the Musketers, by which means the following Figure will be formed, &c.

Front:

Front.

In Firing upon this Figure, you have your choice to Fire, either to the Rear, Front, or Flank, as many Ranks as will stand with conveniency; who, upon Firing, must wheel off and keep the Ground; or upon Firing, they may retire into the Figure, and Charge for a second Firing.

How

*How to form the Quintuple hollow
Square &c.*

IN forming the following Figure, the Musketers having made Ready, and taken their Station in the middle, make the hollow Front cross Battel, by wheeling the Front of the two first Ranks into the middle, which done, the Rear of the two last Ranks must be wheeled into the midst likewise, then the rest of the Body must Face to the Right and Left, and March, till they have formed a Square; whereupon the Words of Command are,

Face to the Front, Rear and Flanks.

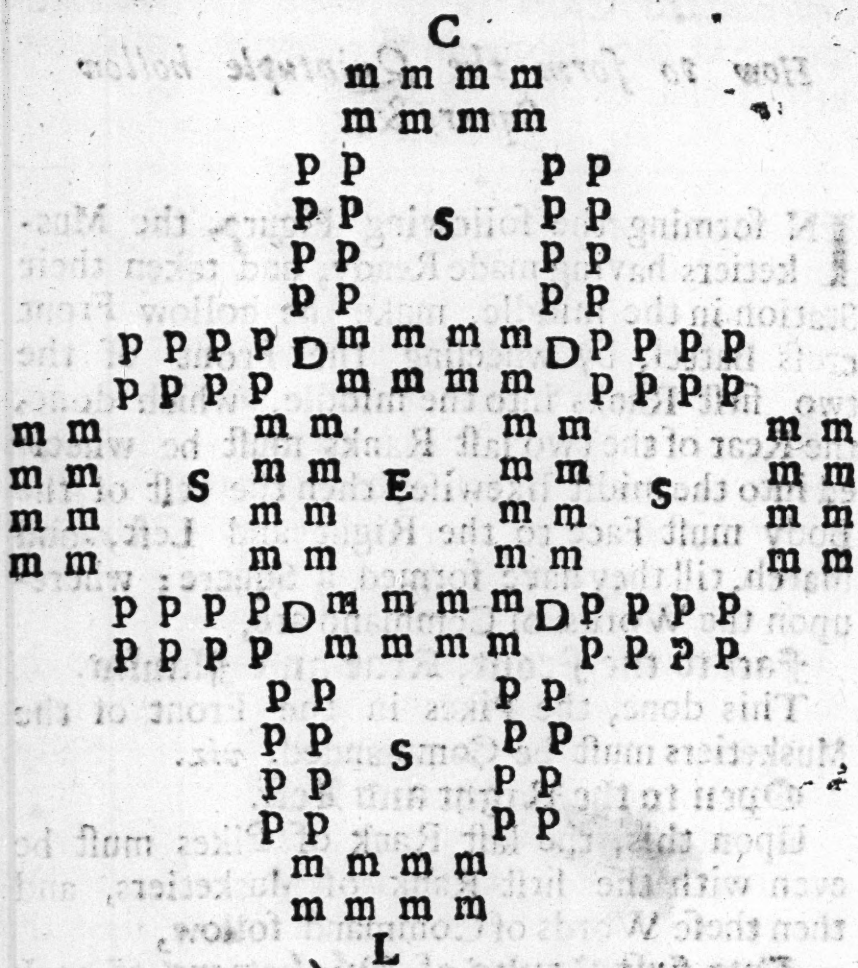
This done, the Pikes in the Front of the Musketers must be Commanded, *viz.*

Open to the Right and Left.

Upon this, the last Rank of Pikes must be even with the first Rank of Musketers, and then these Words of Command follow,

Two first Ranks of Musketers of each Division move forward, clear of the Pikes.

This done, the following Figure will be produced.



In Fireing upon this Figure, the Command is
Musketeers in the midst, Close to the
Front, Rear, and Flanks.

Fire, &c.

The Musketeers ought upon the first Fireing
to make good their Ground; the second time
Fireing over, they must Rank even with the
Pikes; and upon the third Fireing, the Pikes
must move somewhat forward, and the Mus-
ketiers lose Ground, by which means a Hol-
low-

low-Fronted Cross is Formed; and the Pikes must Port and Charge in the Angles, while the Fire is made by the Musketers.

The Form of a Hollow Square Battel impaled with Shot.

TO bring this into Figure and Order, the Serjeants must draw forth the odd Files on the right Flanks, as well Muskets as Pikes, then give Command to the odd Files of the left Flank, Pikes and Musketers, viz.

Face to the Rear.

This must be observed in Wheeling to the left Cross, the Rear following the Bringers up; then the Command to the rest of the Body, is,

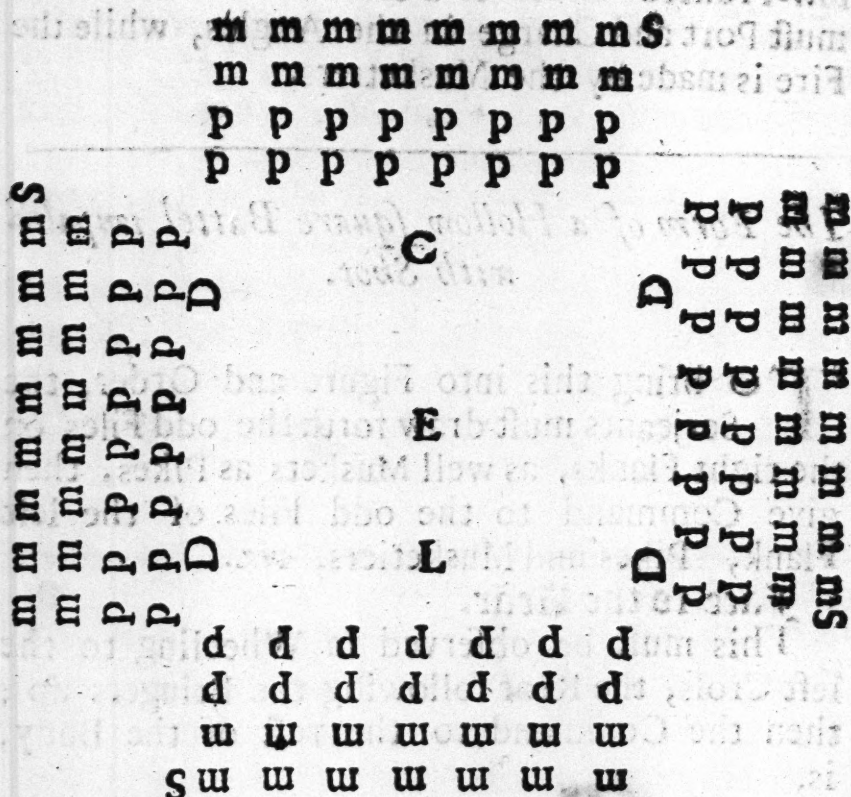
Close to the Right and Left outward.

This must be till the Rear Angles of each Division be in opposition to each other; then the Command is,

All Face to the Centre.

Face all about to the Right.

By this means the following Figure is formed.



Note, In these Figures, that C stands for Commander in Chief; L for Lieutenant; E for Ensign; S for Serjeant; and D for Drums, P are Pikes, and M Muskets.

To Fire upon this Figure, when the Ranks of Musketers have Presented and Fired, they are to Wheel off to the Right and left, through the Intervals, that so they may be made in the middle of each Division, as appears in the Figure, and then they must place themselves in the Rear of their own Division, the next Rank moving into their Ground; or if any urgency require it, the Musketers having Fired, they may Wheel off and take their Station in the Rear

Rear of their following Division of Pikes; which Division is to move forward, and maintain the Musketers Ground.

If you would reduce the Order, the Word of Command to the whole Body, is,

Face to the Left Angles of the Front Division.

Upon this, they must March and even their Ranks, and straiten their Files; upon which the half Files must double their Ranks to the Left forwards, and the first Order will be regained.

Further Instructions and Additions in this Third Impression.

IN Military Affairs there are so many Intricacies, that although we have in this part laid down a great Number very useful and profitable, yet according to the difficulties and emergencies that may happen abroad in Armies, on sundry occasions, it is altogether impossible, and not to be expected by the Reader, that all particulars should be contained in any Book, though of never so large a Volume; besides, many Nations differ in their Discipline, and shift it very often, as the Country offers to be more or less Hilley, Rockey, Champain, or inclosed Ground; or according to the proportion, or disproportion of Horse and Foot; for ever note, Where the Ground is inclosed, or very strait, it is exceeding disadvantageous

advantagious for the Horse to Fight in, and as advantagious for the Foot, unless the Body be very great, and then it is disadvantageous to the latter, by reason they will be compelled to Fight at too close an Order, and cannot form the Battalions in extent; but if a smaller Party be to Encounter a greater, then to be the securer, they are to prevent being Flanked by the Horse, or encompassed by the Foot; for if they are so Charged, they will be compelled to make a Front on every part, so that through too much hurry, without special care, the Order will soon become broken.

To March in Lines, as the Imperialists did in advancing to fight the *Turkish* Army before *Vienna*, 1683. and Routed their Numerous Army, requires not only a Champain Country, but a slow and steady Order, with much firmness; for here they frequently March Regiments deep, when as square Angular, or Crescent, or Mooned Battels move more swiftly; however these things ought to be considered in deliberate Counsel, on the Spot, if time will give opportunity.

In Fording Rivers, what is to be observed.

There are few Countries without considerable Rivers, which prove considerable Lets to an Army in its Marching; for if there be any Bridges, unless they be defended by strong Forts, or Towns, the Enemy will not fail to break

break them down, either to delay, or hinder your Advance; for in many cases a Pass gained over a considerable River, is, as we may term it, the Battel it self gained; then if there be no Bridges, and halt will not suffer you to make one over with Boats, Planks, Casks, or other Materials; then having viewed the posture of the Enemy on the other side, if they be Encamped there, or the Banks guarded, the best way is to endeavour to remove them with your Cannon, and Alarm them at several places, as if you would pass where you mean not to pass, and in the mean time send Parties to try where the Shallows are, and those must properly be Horsemen, one or two of them going into the River, and Swimming their Horses in the Deeps, till they find the Shallows; but if there be no Ford, there must be of necessity Boats, or a floating Bridge for the Foot; for although the Horse, as it is practicable, may swim the River, yet the Foot with their heavy Arms, and the Baggage, cannot do it.

When the Fords are found, it is convenient to plant several pieces of Cannon, if they be defended, to batter the Ranks of the Enemies, so that they may pass under the shelter; if the Stream be rapid, the Horse ought to take the Stream-side, to break it off the Foot, for their more easie passage, and they must all keep up their Arms, lest being wet, they become unserviceable, and not to fire till they come close to the Shoar: This Order was held by the King's Army, passing the River *Boyne*, where, by his Majesty's excellent Courage and Conduct, a famous

mous Victory was obtained over the *French* and *Irish* on the 1st. of *July*, 1690.

Of Prisoners taken in War, and their Privileges.

IT cannot but be expected by those that Trade in War, and Soldiery, that in Fights, or being out upon Parties, or in Garrisons, a Man may be at one time or other made a Prisoner, and it behoves him to be cautious in this, for his safety, and sometimes for the safety of a whole Party: If in Fight a Man be forsaken by his Fellows, falls Wounded, or is no longer able to resist the force or odds of those that oppose him; in such a case, the best way is to submit to the Misfortune, by asking Quarter, and yielding up your Sword with the Point towards you, to those that demand it, it being rash imprudence to Exasperate an Enemy, in whose power you are, without any probable hopes of escaping, at whose disposal your Life is; for in hot Blood an Enemy will not stick to do that which in cold Blood he will be ashamed of; however, it becomes not a Man of Honour, when taken, either for threats, or promises, to discover the Councils, or further Intentions of his Party, but rather wait his better Fortune to be Exchanged, Ransomed, or Rescued.

If you are out upon a Party to discover, beware you are not drawn into a Trap by the Enemies Party; for many times they will, if they

they find themselves the weaker, say, They are of the same Party; and so mixing with you take an advantage to set upon you, or draw you into an Ambush; however, be brave, and if Resistance avails not, it is no dishonour hastily to Retreat; but if taken, be not of so mean a Spirit, as to discover any thing to the disadvantage of your Friends.

In Garrison it is otherwise, though tending to the same purpose; for there the business is not so hasty, but they have time to make Conditions, which prove advantageous, or otherwise, according to the Strength, Weakness, or obstinate Resistance: The manner is, before a close Siege, to send a Summons to the Governor by a Trumpeter, or other Hand, and upon refusal, the Batteries are razed, Ground broke, &c. and here, if the Place be Stormed, the Lives of all that are in it, are at the disposal of the Conqueror, which many times proves bloody and Merciless, out of a Maxim of War, Policy, &c. to terrify others to a speedier surrender: The Prisoners in this case, are either Prisoners at War, or at Discretion, and may be disposed of at the pleasure of the Victor; but after their submitting, and Quarter given, their Lives are secured from any After-clap, by the Articles and Rules of War.

Some Considerations in Retreating, after a Defeat, or being too weak for the Enemy.

IT many times happens, that a brave Commander may be necessitated to a Retreat, either by being beaten, or perceiving himself too weak, and not able to Fight the Enemy that approaches him: This must be done in as much order as can possible; and by such ways as are advantagious to stop the Enemy, by facing about; if they should press hard on the Rear, keeping some Parties of Horse at distance from the Body, to skirmish them, and if time will admit, break down such Bridges as you pass, to Delay them, and Refresh your Men, so that if you find they are eager in the pursuit, and you can get to no strong Hold, fortifie inclosed Ground, or Woods, as the place will admit, and by this means, from the advantagious Scituation, and Ambushes, you may lay Victory, and may declare on your side, and it may be in a short time in your power to pursue your Pursuers.

Considerations and Cautions upon Pursuits.

ALthough an Enemy be worsted, yet an unadvised pursuit may be very prejudicial, to draw the Pursuers into an Ambush, as it

it has often happened, and the Scale of Battel as turned; it happened to the *German*, and Conderate Forces against *Mahomet* the Second, Emperor of the *Turks*, where the *Christians* too hastily Disfranking, gave the Enemy, though Routed before, opportunity of Rallying and Returning upon them to their utter Rout; and many Parties by following too hastily, have been cut off before others could come to their Assistance, and the Enemy has escaped some time after a little Skirmishing; the Enemy flies in Policy, to Draw you into Danger; but nothing has proved so fatal to Armies, as before they could be assured the Battel was perfectly won, to Alight, Disfrank, and fall to Plundering; for however great the Spoils be, the Honour of your Prince, and your own Safety, requires you to see the Enemy beaten out of the Field, without hopes of Rallying, before you take the Spoil.

What a young Officer is to do when he comes into the Army.

WHen a Man has never been in an Army, when he comes into the Camp, he is in an Amazement, he hears a Language spoken, which till then was unknown to him; and to which before he is accustomed, he must be some time in the Camp. The Guard of the Camp: the *Piquet*: The Guard of the Colours: The Orderly Guard: The Generals Guard;

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The Main Guard: The Ordinary Guard: And the *Bivac*, are new words to him; and which he cannot understand the meaning of, until they are explained to him. The Guard of the Camp, is the Guard upon which the whole Army relies; they have Day-posts, and Night-Posts; their Posts in the Day time are at some distance from the Camp, and on the side which is towards the Enemy, that if any thing appears, the Army may have timely notice to stand to their Arms; their Posts at Night are near the Army, that they may not be cut off by the Enemy; in the Day-time this Guard commonly alight from their Horses, and Detach a small *Corps de Guard* before them, and that small Guard Centries, sometimes one, sometimes two, as need requires. This small *Corps de Guard* do also alight from their Horses, the Centinels only being on Horseback, which are Relieved every Hour; there is also a Centinel placed on the side towards the Army, but this is only to give notice when the Generals are coming, for then the whole Guard is obliged to be on Horseback, and to receive them with their Swords drawn, unless there be an exprefs Order to the contrary; the Persons to be Saluted with the Sword, are the Generals, the Lieutenant Generals, the Marshalls *de Camp*, and the Generals of Horse; for when any of these appear, this Respect is to be paid to them: In the Night-time the Guard ought never to alight, they having then, as well as by Day, a little Advanc'd-guard, and there ought to be plac'd between it and them

them Centinels on Horse-back, with Orders to listen very attentively to hear what passes, and upon all occasions to give notice of what they hear, to the Guard; he that Commands this little Guard is to inform the Commander of the great Guard, and he the Person who Commands the General of the Horses Guard. Some Officers to ease their Men and their Horses, keep but one Rank on Horse-back to be relieved every Hour; but this ought not to be done, especially if the Enemy be near, but he that Commands the little Advance Guard ought to suffer none of his Men to alight. The Centinels which are plac'd in the Night ought to be double, for being Two together, they will not be so apt to fall asleep; they are Relieved from Hour to Hour; but before they are allowed to join the Squadron, they are obliged to go upon the Patrole, having a Word and a Signal given to them, that there may be no Disorder when they meet; there happen very nice Affairs sometimes to the Officers upon the Guard: For I have known in *Flanders* Centinels Desert to go into the Enemies Army, which was within a quarter of a League of ours; upon this occasion the Word which is given, must be chang'd, and the General of the Horse acquainted with the Desertion for then is the greatest likelihood of being Attacked by the Enemy, they thinking to gain great advantage by the Word being discover'd to them by the Deserter. This caution must be used also when they take Prisoners, any of those which are upon the Patrole, lest

I 4

they

they learn from them the Word, and then endeavour to surprize you: An Officer which Commands the Guard, ought always to be on Horseback, and every quarter of an Hour visit his Advanc'd *Corps de Guard*, and his Centinels, but if he be not able to Watch himself, he must desire the Officer which Commands next to him, to have an Eye to every thing, and to awaken him, if any thing happens. It is commonly at the break of Day, that the Enemy makes any attempt; and then we are to send the General Notice, so soon as any thing appears, but we ought not to quit our Posts, how eager soever we may be to Fight, for a Guard is set only for the security of the Camp; and unless it be Attacked, it is to shew one does not know ones business, to come to Blows; but however, if the Enemy Charges any small Guard, which is a Detachment of that which one Commands, a Man ought to fly to its assistance; The reason of this is, because we our selves are Attacked when those Posts are, which we are to keep; but when there are two small *Corps de Guard* Detach'd from the Main-guard, and that the one is Attacked, the other ought notwithstanding not to stir, for it would be to be feared, that whilst that is employed in yielding Succours to the other, the Enemy would endeavour to gain their Post; they ought therefore to wait the Orders of the Commander in Chief of the great Guard, who is to determin what they are to do.

As

As there is most commonly more than one Guard set for the safety of the Army, so if one be Attacked, it is not for the others to run to their Assistance, without being Commanded, for the Reason I have already given. It is the same thing when an Alarm is taken, for although every one is obliged to make ready, and stand at their Arms at the Head of the Camp; yet they must not run every where, where they hear Action; their Courage must not transport them so as to March without Order, and we acquit our selves best of our Duty, when we are ready to do what we receive Command to do. The King's Guards did not heretofore Mount the Guard of the Camp, but at present they are no more exempted than others, their reasons for it were, that they were to be upon no Guard of Fatigue; but it being that which accustoms our Bodies to War, the King has Ordered they shall do the same Duty as his other Forces do, when the Enemies appear, and the General resolves to Engage them; the Guard may demand it as their Right to be plac'd in the Front of the Battel; this Guard is Reliev'd every 24 Hours, and the Officer which Relieves it, has always his Sword drawn, and takes the Right Hand of the Person he Relieves.

As to the *Piquet*; it is a Detachment of Men, who are always near the General, ready to Execute whatsoever he Commands them; wherefore they are always Booted, and their Horses Sadled; they are very useful in an Army, for Alarms may happen to be given at all times,

times, and these Men are always ready to go where there is need of them; so that a General cannot then be surprized, their employment in the day of Decampment is to take care of the Ways, and to see them mended, that the March of the Army may not be retarded. The King's Guards seldom furnish Men to do this Duty, but sometimes they do.

The guard of the Colours, is that which is drawn out of each Regiment of Horse, to guard the Colours which are at the Head of the Camp, they ought to be Booted, and their Swords drawn when they are upon Duty, although they are on Foot. The King's Guards do this Duty as well as others, and it is upon this Duty the Officers put those who have committed any Fault, which is a great Mortification to them, being seen and known by all that pass by. It is the Duty of this Guard to Watch that there be no Immoralities committed in the Night-time in the Regiment; they are also responsible for any thing that is lost in the Night-time, therefore it behoves the Officer that Commands, not to neglect his Duty. The Collonel commonly sets near his Tent, a Centinel taken from this Guard, who is Relieved every Hour, this he does by his own Authority, and is Authorized to do it by Custom.

The Orderly-guard is a Detachment, which is made out of every Regiment of Horse, of Men who go to the General of the Horse his Tent, and remain there to receive Orders; so that if there happens any thing that requires
hast,

hast, they are sent to their respective Regiments, whereby they are all able to put themselves in a readiness at the same Instant of time: The King's Guards are equally obliged with the rest, to furnish Men for this Duty, but with this distinction, that they are always lookt upon as Officers, and admitted to the General of the Horse's Table; but I have known the time when they were no more lookt upon, than other private Centinels, which was 1667. and then they were often Commanded by a Corporal of Light-horse, they being Detach'd without distinction with them.

The Generals guard, is only to Honour his Character, it consisting but of Foot, which is always Commanded by a Captain. The Lieutenant Generals and the Marshalls *de Camp*, have always Guards, but they are only Mounted by Inferior Officers: The King's Guards are never upon the guard, but to his Majesty, and there is then always both Horse and Foot. The Officer of the Generals Guard, Eats always at his Table, where let the throng be never so great, there is a place left for him: This guard is Mounted by turns, as all others are, and is Relieved every Twenty Four Hours.

The great Guard and the ordinary Guard, are those which are Subservient to the Guard of the Camp, which is call'd the great Guard, and is Mounted by whole Regiments, or half Regiments. The great Guard, and the ordinary Guard, have different Posts in the Day-time, but

but they draw together at Night ; and then, if there be no Colonel nor Major present, the Eldest Captain Commands both. A Soldier that Deserts when he is upon the Guard, or stands Centinel, endeavouring to get to the Enemy, is much more severely Punished if he is caught, than if he had taken another time to run away, for they are not Shot to Death, but Hang'd.

There is also another Guard which is call'd the *Bivac*, which is only used in Sieges ; and when the Enemies are very strong, or near to us, none are exempted from this, and the whole Army Mounts it together, or half of it, according to the occasion : It is not to be Relieved every 24 Hours, for they Mount it at Night, and go off in the Morning, this is done very exactly, till there are Lines of Circumvallation made, which when finished, they give themselves more Rest, there not being need of so many upon this Guard.

An Officer who desires to know what these Guards are, must be on Horse-back every day, and be where they are Drawn together, where he will find most part of the Officers of the Army, viz. The Generals of the Horse, the Brigadiers, the Collonels, and sometimes the Lieutenant General. and the Marshals *de Camp*; he ought to follow the great Guard one day, and another the ordinary Guard, to see how they Mount them, and how they come off from them, that he may know his Duty when it comes to his turn : When an Officer is Commanded to the ordinary Guard, he must Com-
mand

Command the Men of his Regiment together, to the Head of the Camp, half an Hour before the time prefixed, and March them to the Parade place, to the end that the General of Horse may find you there, and take notice of your Exactness in the Discharge of your Duty; and besides, it being much fitter you should wait for him, than he for you; by taking care not to fail in little things of this Nature, you will soon gain the Reputation of being a good Officer; for your shewing an Exactness in the Discharge of your Duty, is of more advantage than all you can do in a Fight.

THE

THE
SECOND PART:
OR, THE
Expert Engineer :
Being the
ART of GUNNERY,
AND
Making Fire-Works for War, Re-
creation, &c. and other Matters.

Serving as a SUPPLEMENT
To the foregoing TREATISE.

AS great Ordnance are an Essential part of War, so it will not be amiss, but altogether convenient, to give the Practitioner in Engineery, a prospect of those Affairs that must unavoidably concern him, and therefore he that would improve himself in this kind, by Land or Sea, must first be careful in knowing what Materials are

are requisite, as also to be Skilled in Geometry and Arithmetick, the better to know what measures to take on sundry occasions, that vary in themselves.

And to this purpose the Gunner must ever have Rammers, Scoops, Ladles, Sheeps-skins with the Wool on, to Sponge or Clear the Piece; as likewise Canvase or fine Past-board, to make Cartridges for the Powder, when the Piece is Hot with often Discharging, lest the Powder being put in loose, it Fire of it self; he must have spare Wheels, and Axle-trees, lest any should break in the way, and so delay the March of an Army, which frequently happens to its great detriment; Shot he must have of such sizes as the Pieces will bear, even to the full of the Calliber, lest forcibly rattling against it, it flaw the Piece; he must likewise have Case Shot to break the Front of an Enemy, open a Passage, or clear a Deck when Boarded; likewise Hand-spikes, Budge Barrels, Baskets to carry Shot, Match, well Armed Linstocks, Torches, dark Lanthorns, and Compasses to Measure the Piece and Shot, and to prevent breaking, the Charge must be proportioned according to the thinnest Mettal of the Piece; and in this case, the Charge being put in with your Scoop; if you are to Fire upon a Line, or under Mettal, you must be sure to clap in a good Wad after it, and Ram it down, or else the hollowness of the Powder may chance to burst the Piece, not only to the defeating your Design, but to the Killing and Wounding many Persons near it, which

which has but too sadly happened by carelessness; and to move or traverse your Piece, beside Hand-spikes or Leavers, you must have Crows of Iron, Coins of Wood to lay it above or under Mettal, taking care to know the depth of the Chamber of the Piece, that the Charge may be agreeable; for if the Shot be too light, or too heavy for the Charge, it will never answer your expectation.

Of Artillery, there are several kinds, *viz.* the Falconet, the Basilisk, the Rabinet, the Falcon, the Minnion, the ordinary Minnion, the Sacker, the lowest sort, the ordinary Sacker, the Sacker of the elder make, the lowest Demiculverin, the eldest sort of Demiculverin, the ordinary Demiculverin, Culverin of the best size, ordinary Culverin, Culverin of the largest size, lowest Demicannon, ordinary Demicannon, Demicannon of the great size, Cannon Royal, or whole Cannon, being the biggest of all Ordnance.

According to the bigness and weights of the several Pieces, they must be Charged both with Powder and Shot, and if we suppose a Piece to be in length 8 Foot, and that this Piece weighs 1500 Pounds, having four Inches Diameter in the Bore, and you would know how much it requires, take notice that it requires Four Pound of Powder to carry a Shot of sixteen Pound 160 Paces, at five large Feet to the Pace, and do Execution, unless the Piece be defective, by Flaws or Honicombs within; and to try the first of these, as soon as ever the Piece is discharged, stop the Muzzle and Touch-hole, and if there be Flaws that come
K through,

through, you will perceive the smooke work through them; this is to be known likewise by an Iron Hand-spike, which will cause the Piece to jar, if the Flaws are considerable.

The Honicombs are certain spunginess or defects of the Metal in casting, which may be perceived by reflecting the Light of a Looking-Glass held against the Sun into the Mouth of the Piece, or putting in a piece of Candle on a long Cleft-stick.

The Terms of Describing a Piece, and Shot, &c.

THE outward Ring of the Breech is called the Cascable Deck, that Ring next the Touch-hole is called the Base Ring, and the place between the Touch-hole, and the next Ring is called her Chamber, or Charging Cillinder, the next Ring is the Ramforce Ring, the Third the Tronion or Ballance Ring, and that the next Muzzle is called the Cornice Ring, and the uttermost Extremity is the Muzzle, the hollow is the Caliber, the top the Superficies, and the whole length the Chase; so that he that will be a Gunner must have these distinctions, as ready as a Sailor has the Points of the Compass.

As for the Shot used, it is generally Iron, but sometimes Lead, and for want of these Stone, and these must be considered according to

to their Weight and Bigness, for there is a disproportion, if we consider the equality of their Weight, and this not being well observed, may be of great hindrance in hasty Enterprizes, and the proportions are these.

Between Lead and Iron six to nine, by which it is observed, that a Shot of six Pounds Iron, is as big as nine Pounds Lead, and the proportion between Iron and Stone is Three to Eight, so that there is Eighty to Thirty; for a Shot of Stone of Thirty Pound is proportionable in bigness to an Iron Shot of Eighty Pounds; and in this manner you may guess of any kind.

How to make Cartridges, &c.

IN case a Piece is very Hot by Exercise, and will not endure the Powder, then a Cartridge is necessary: To make them, you must have a Rowler of Wood to the bigness of your Piece, on which you must role Paste-board, or Paper, Pasting it as you role, that it may lie firm and smooth; then having dried the Cases, fill them with Powder, and choak them at both ends with a small Cord, or you may stop the ends with Flax, and put it into your Piece, forcing it with the Rammer into the charging Cylinder, then with a sharp Iron bore it at the Touch-hole, and Prime.

If you would shoot red hot Bullets, as many times it is done at Sieges, to Fire Houses, you must when you have rammed down your Cartridge, force a green Turf upon it, and then sling in the Shot; this way has been common, especially at Sea, but since Bombs, Hand-Granado's, Stink-pots, &c. have been in use, it is not often practised.

Observations in Ballancing a Piece, &c.

YOU must ever observe in Marching, that the Carriages are proportioned to the Piece, to prevent overthrowing, or breaking, so that to set them true, one and a half of the Length of the Cyllinder or Chamber, should be the Length of the Carriage-stock, and the Depth of four Diameters of the Concave of the Bore in the middle, but at that part next the Ground, about the proportion of the Diameter of the Shot will suffice; as for the Wheels they must be strong, and the height for Land-Service about half the length of the Piece, but on Ship-board lower Carriages are in use; the Turneons or bearers of the Piece must be laid on equal heights upon the turning Irons of the Stock, that the Piece may stand true Mounted, lest swerving to any side the shot become Random, and in this case Two Thirds of the Piece must appear above their Centre, having Cordage ever ready, to move or turn them,

them; especially for Braces at Sea, for many times a Ship is over-set, and in danger to be lost by their breaking loose through the defect of Tackle.

Further Instructions necessary to be known.

EVer observe that your Budge-Barrel, Leather Bag, or Cartridges of Powder lie on the Windy side of you, lest a spark flying from your Match, Blow it up; and after a Discharge having cleansed the Concave with your Sheep-skin Furbisher, fill your Ladle, but not so full as to scatter any, and having Charged it as home into the Piece as you can, give it a sudden turn with your Thumb and Finger, keeping your Body for your own safety clear of the Muzzle, and so quickly drawing it out, clap in your Wad, and force it down, that the Powder may not lie hollow in the Chamber; then put the Shot in and Wad it down, having the Touch-hole all this while Covered, lest any spark should fall in; then having a Linstock well Armed with a good Match and Coal, prime with small Powder, drawing a Train from the Touch-hole, and Fire one end of it; for if you should hold your Match upon the Touch-hole, the force of the Powder would blow it away.

Directions for Shooting at Random, or at a Mark.

IF your Business lies to Shoot at Random, or at a Mark, then you are to consider the Random of a Piece is its entire distance from the place where you Discharge, to the place where the Bullet first lights or grazes on a Level Line, called a Horizontal plane; and to gain the true knowledge of this, the Ground must be Level where it is put in practice, so that the Level of the Shot may not be hindered, and having taken notice of the distance of Ground from the Piece to the fall of the Bullet, Mount the Muzzle a degree higher, observing again the same notice, by which through many degrees you will be capable of knowing, upon the Level or Ascendant, how many Paces the Piece will carry, with more or less Powder, which may be raised even to a Tenth Degree, or as high as the Piece can be Mounted, so these distances well understood, the Gunner may know how to direct his Piece either at a Bastion, Castle-Wall, Curtain, Ravelin, Counterscarp, against the Batteries of Besiegers, or into their Trenches, or he may batter the Ranks of an Army at a great distance, and many other things incident to true Rules of Fireing, even to the striking a Ship under Sail; but in Fireing at a thing in Motion, you must consider the swiftness of it, and Fire in your Aim a distance before, and so

so the Bullet by that it moves that space will be there, for although a Bullet is carried with impetuosity, yet all Motions require time.

If you would strike down a Light in the Stern of a Ship, or in a Castle, if it be in the Night time, you must stick directly on the top of the Muzzle of your Piece, either a Piece of Wax-Candle Lighted, or a Fired Match, by which means you will bring that and the other Light together, so as to take a fair Mark; and to know whether they are brought together, flick up a Nail with a piece of Wax or Clay, on the Breech of the Piece, and bring that and the other two to bear with each other.

How to take out a Shot that sticks in a Piece, and cool her, to make her recover her Force.

IT many times happens through too much hastiness, or that a Shot is mistaken, or that the Powder for want of being rammed down makes it stick half way, so that it is dangerous to Discharge it, without breaking the Piece; in this Case let it descend, lowering its Muzzle, and then having Dissolved Bay Salt, or other Salt in Vinegar, put it into the Touch-hole, and it will dissolve the Powder, then strike on the Piece with a Hand-spike, where the Bullet lies, and it will rowl out, having before

given it a thrust or two with the Rammer to loosen it.

It is taken notice of by all Gunners, that the oftner a Piece is Discharged, it by growing Hot loses more of its Force, and will not carry the Third or Fourth time so far as it will the First or Second, every time abating somewhat; so that you must Cool it, which is much the better done with Vinegar, for that not only carries off the Heat, but by the sharpness of its Quality recovers the lost force.

What Powder is made of, and how to try its Goodness.

POWDER, a Fatal Instrument of Death, and almost of Incredible Force, was first found by one *Bartholdus Swart* a Monk, by a spark of Fire accidentally falling amongst some of his Chymical Preparations, but since, as to its Force, has been much improved; it is made of the Quintessence of Salt-peter, Brimstone, and Coal-Dust, by grinding and other means; however in long lying after it is made, it will lose much of its Force, the strength of the Salt-Peter tending down-wards, and that of the other matters upwards, and the first thing to know whether it be good or not, is to Handle it, and observe whether it be well Dried and Corned, this being Noted, lay a few Corns scattering upon a Sheet of white Paper,

Paper, and set Fire to them; when if so it happens, there is a Black Mark, or single, with a Noisom smell left behind, then the Powder is not good, but if there be little or no Mark, or a clear blewish Mark, then conclude it fit for Service, but naughty Powder may be made up again, and strengthened with Salt-Peter.

How to Charge a Mine, Blow up a House, to prevent the Progress of Fire, or a Ship that is sunk.

1. **M**ines are various, some already advantageous by Vaults, others must be carried on under Ground, great difficulties being met withal, as Rocks, or Springs of Water, however the Mine being made, if there be any considerable quantity of Water, the Mines, for dryness of the Powder, ought to be Charged with Barrels of Powder, whereas those that are drier may be Charged with Bags or Sacks, the Train laid by Match, and six Inches of good Match will burn an Hour, but for quick Execution, a Train may be laid into some Trench through Cane Troughs or upon Boards, and great Care must be taken that it be so Charged, that it refund not, or burst out upon those that spring it.

2. To take a House directly up, that it shall fall directly, as we may say, in the place where it stood, though shattered to pieces,
place

place the Powder, if there be any Cellars, directly under the main Beam, lay a Train upon Boards from the Bung-hole of the Barrel, covering it to prevent Sparks falling in the Train, and place at the Head of the Train a piece of Wild-fire; when having given notice by beat of a Drum, set Fire to that with your lighted Match, at the end of a Linstock, and retire to a Coverture for fear of any scattering Tiles or Timber; if you would throw it side-ways from the Fire, place the Powder near the contrary side, under a substantial Beam, and it will cast it as you wish, so the Timber may be drawn away without danger.

Many times it happens that a Ship sinks in a River or Channel, and is not worth Weighing, yet obstructs the Passage, especially at Low Water, here you must send down a Diver to find the Entrance into the Hold of the Ship, and that found, fix a Leather Pipe with Pitch or Rosin into the Bung of a Barrel of Powder, that the end of the Pipe may be above Water, when the Barrel is in the Hold which must be sunk and guided down by Cords, then the Top of the Pipe floating by help of Bladders, the Boat that Waits must with a long pair of Tongues put a Hot Iron Bolt down it, and make off as fast as may be, else the Powder taking Fire the Wreck will Float, and endanger the Over-setting it, or this may be done with a long hollow Fishing-Cane.

Fire

Fire-works for War, used on sundry occasions; the manner of making and using them.

Most Fire-works used in Sieges, are of late thrown out of Mortars, the best Mortars being made of Brass or Copper, though sometimes of Paste-board and Wood.

If the Bore of a Mortar happen to be Ten Inches in Diameter, it ought to be a Foot and Nine Inches in Length, and the Chamber Three Inches and a half in Diameter, and in Depth Five Inches, the Mettal above the Port, Fire to be Three Inches and a half in Thickness, and so lessening Two Inches; As for the Planting these Mortars, the ways are not difficult, for they are mostly played Mounting, yet the Engineer ought to be well Skilled to direct a Granado Shell to any particular place; for upon his Delivering it, he ought to know justly where it will Fall; likewise his Fozes must be so exactly made, that they will not break till they are in the place designed for Execution.

How

How to make, or Order a Granado.

A Granado is first properly called so, in relation to its Shell, for the Shells to contain the matter are cast with hollow Cavities, and a small vent, frequently of Iron, but sometimes Brass, Copper, Glass, and Earth; these, if designed to blow up, or beat down, are usually filled with dry Powder, and a hollow Iron or Pistol Barrel Rammed with Wild-Fire, made of Brimstone-Flower, Dust of Powder, Salt-Peter, and Oyl of *Petroleum*, drove into the Vent of the filled Shell to an Inch; when the Mortar being Charged, the Granado must be slung in with Ropes, put in the Hooks of the Shell if it be very great; then having taken your Aim, you must, a Minute before you give Fire, Fire the Fuze, then by Firing the Mortar, send it away to the place designed; and of such deadly Force is this Engine of Mischief, that falling upon a Castle, Church, or House, it breaks through to the lowermost Floor, beating down all before it, and then blows up and rends in a terrible manner, the Shell breaking in a Thousand Pieces.

Note

Note, That in this Additional Part of Fire-Works, Written and Inserted to Accomodate the Third *Imprission* of this Book, I shall lay down such as may tend to the Advantage of War.

Granado's more effectually to Fire Houses, &c.

TAKE strong Canvas and Role it upon a Ball of Wood, then dapple it over with warm Glew, or Pitch, and so put on another laying of Canvas, and continue so to do, till it is about an Inch and a half thick, still Pitching, or Glewing it, then bind it over with small Pitched Cord, leaving so much space as you may Cut it in two, to take it off the Ball, then clap over another Coat, to bind the halves together; when you have filled them with Brit-stone, Pitch, Tow, Rosin, and such like combustible matter, placing as much dry Powder as will fire and break it; this done, put in a Fuze, as in the other Granado, and send it out of a Mortar, and it will beat down, and fire in a terrible manner all that is Combustible.

Carcasses, how made,

This destroying Engine is held to be the late Invention of a *Spanish* Engineer, and was used with great success at the Famous Siege of
Buda

Buda, and *Belgrade*, not long since taken from the *Turks*; the Case is somewhat oblong, made of Leather, Paste-board, and Canvas, bound about with small Iron Hoops, or strong Twist-Wyre, and is filled with Turpentine, Salt-Peter, Wild-fire, Srimstone, Flax dipped in Linseed Oyl and Tar, with a sufficient quantity of Powder to fire and break it: This being sent into the Air, comes down with horrible blazing, like a sheet of Flame, scattering its Fire a vast distance, so that many Houses are fired at once, and many times great Stones are bound up in it, which falling, destroy those that are under them.

A Treatise of Artificial Fire-works, &c.

THE Principal thing to be considered, is mixing the Composition to a due Proportion: Therefore for the Composition of middle sized Rockets, add no more than two ounces of Charcoal to a pound of Powder, the one and the other being bruised and sifted through a Lawne-seive, with which, by degrees, having filled one Rocket try it, when if it break there is too much Powder in it, but if it refuse to Mount after you have added more Charcoal then have you added too much, and must add Powder well beaten till you find it Mounts freely without breaking; for the Force and Motion are occasioned by the Powder, and the fiery stream or tail by the Charcoal

coal-dust, or if you want Charcoal, Sea-cole fine beaten has the same Effects: Observe when you Charge the Rocket, that every Quarter of an Ounce you put in, you beat it down with a Mallet, or some weighty thing, giving Three or Four Blows on the top of the Rammer, not filling the Case higher than the Mold, but being even with it double down half the Paper with a Bodkin, beating it close, and then with the same Instrument pierce two or three holes in it to give fire either to Stars, Saucissons or Serpents as hereafter shall be more plainly Demonstrated. And let the rest of the Cartouch or Cases be cut even with the Mold; and after this manner must be made Rockets great and small, only the Composition for the lesser must have less Coal than that for the greater.

Ground Rockets Serpents, &c.

The Moulds for Ground Rockets seldom vary for the Caliber or bore, being half an Inch in Diameter, the Length must be six Inches, and in all other respects relating to the Cartouch like the Skye-Rocket, the composition if it may be rightly termed, must be only Powder fine beat and rammed in by degrees as into the former, till within an Inch of the brim, at what time, put in about a Pistol Charge of unbeaten Powder and Choake into what remains unfilled with a small Cord, tying it fast and cutting off what hangs over, leaving it with a picked end, when being thus

Finished

Finished, Prime it with a little wet Powder and lay it a drying. The Serpent being in effect a small Rocket, I think it not amiss to joyn it with the ground Rocket. The way then to make the best sort of them, take as followeth, *viz.* Let the Cases be made upon Rowlers, the Paper Nine times round, the Rowlers not exceeding the thickness of a Tobacco-pipe, when having pasted the out-sides, Choak the neck about an Inch, then taking out the Rowler and Broach, fill them if for the Air, with the Composition of the Air Rocket, if for the Land with that of the ground Rocket in the same manner.



F I N I S.